

**GLOBAL BUSINESS AND TECHNOLOGY
ASSOCIATION**

**GLOBALIZING BUSINESSES FOR THE NEXT
CENTURY: VISUALIZING AND DEVELOPING
CONTEMPORARY APPROACHES TO HARNESS
FUTURE OPPORTUNITIES**

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Editors:

**Nejdet Delener, Ph.D.
Leonora Fuxman, Ph.D.
F. Victor Lu, Ph.D.
Susana Rodrigues, Ph.D.
Luis Rivera, Ph.D.**

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REFLECTIONS ON MANAGEMENT AND LEADERSHIP IN LOCAL GOVERNMENT IN SOUTH AFRICA: THE QUEST FOR EXCELLENCE IN SERVICE DELIVERY

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ABSTRACT

South Africa is internationally acknowledged for its leadership in building democratic local government. As part of its pursuance to public service transformation, the Country has developed systems, which imbed state-of-the art administrative technologies. The South African local government arena is well-endowed with resources and supportive appropriate processes are available. However, practical execution is often hampered by inadequate management and the associated leadership required for the purpose of service delivery. Performance reports indicate significant inadequacies in service delivery, which visibly manifest in the form of regular community demonstrations in municipalities where citizens feel disillusioned by the system.

This paper focuses on the service delivery imperative and its dependence on sound management and leadership by local government institutions. It takes a reflective, theoretical approach to describe the service delivery dynamics more than 19 years into the South African democracy, and the nature of appropriate management and leadership expected in the process. A qualitative study is undertaken, where the authors reflect from their participant-observer status, on the leadership dynamic, coupled with the resources and process mix in the quest towards achieving excellence in local government service delivery.

INTRODUCTION

South Africa is a state with a strong local government system, which constitutionally provides for service delivery among local communities throughout the country. The local government system is mandated to provide services such as health, refuse removal, street lighting, roads and environmental protection. Such services form a constitutionally mandated base to development. Hence, local government in South Africa is developmentally oriented and is set on promoting economic development. Over the years demonstrations and the destruction of local infrastructure has characterized the actions of communities in South Africa. This has raised concern and a need to conduct an analytic review is seen as critical to enhance the performance of these institutions as they strive to fulfil their mandate.

The purpose of measuring performance is to determine whether or not public sector institutions are working towards achieving the fundamental mission and purpose of government, that is, to enhance service provision and improve the lives of the communities. Without measuring the performance of these institutions, it is not possible to determine whether or not services are delivered as expected for the benefit of communities. Thus, in this analysis two concepts are critical. These are *service delivery* and *performance measurement*.

QUALITY SERVICE PROVISION IN THE PUBLIC SECTOR

Excellent service delivery by local government institutions are causal to effective public decision making and planning, community participation, community interest and not the interest of political office bearers. The work of this system can only be known through an intelligible performance, monitoring and evaluation system, taking cognizance of critical indicators of performance and checking whether or not there is

adherence to these pointers in all service delivery actions.

The term 'service delivery' is used interchangeably with 'service provision. It is a concept that is rooted in government operations and underlines the basic functions or *raison d'être* of the state. This implies that the provision should be undertaken in a manner that satisfies communities at the same time balancing such a service with the cost of the service. Consequently, appropriate service delivery is that which maximizes benefits and minimizes costs. This is the essence of an efficient service delivery system.

Rickert (2001:90) defines this concept as follows: "Service delivery is concerned with the provision of a product or service, by a government or government body to a community that it was promised to; of which is expected by that community". Fox and Meyer (1995:118) define service delivery as "the provision of public activities, benefits or satisfactions to [communities or any other user of such products or services]". Thus, service delivery is the basis for the existence of public sector organizations. It is the ability of public institutions to offer service users with what they want in an efficient, effective, responsive and fair manner. The services offered by government are the most tangible outputs of administrative agencies (Sharkansky, 1975:334) and this output would be meaningless to consumers or publics (or customers) if they do not derive the intended satisfaction.

In this context, the notion of quality arises. An abundance of definitions of quality exist. Some notable ones include the following:

A 'conformance to requirements': discover what the customer wants, train everyone how to accomplish it, and then deliver that to the customer on time (Crosby, 1992:116); and

A customer-based way of doing business: the user of the product or service can count on it for its intended purpose (Juran and Gryna, 1980:1-2);

Quality is customer oriented and it is a universal concept that exists in both public and private organizations. It is through quality services that the consumer of a service or a product is satisfied.

The question arises then as to how can quality services be improved? The following are the criteria on how quality service provision can be improved:

- *Improving communication* within the organization and with customers, suppliers of goods and services to the organization and other sister government organizations who have a stake in the process of service provision. For example, municipalities need to maintain excellent communication links with the department of local government, the provincial department, NGOs and CBOs. Synergy cooperation is indeed a requirement if there has to be a meaningful impact in providing municipal services.
- *Instituting a vigorous programme of educating and training service providers inclusive of both administrative and professional officers in municipalities* (Ishikanowa, 1984:4).
- *Generating a culture* built on respect for the community members as citizens, secondly as clients who pay for services. This helps to enhance mutual acceptance and tolerance of one another. This is fundamental for the protection of human quality.

Crous (2006:399) indicates that it is not about the constituent characteristics of the product or service but what it yields to the consumer or customer. This is critical as communities are the end users of the service and have knowledge on what they expect. The consultation process goes beyond the mere fact that consumers have a practical inquiry to come up with a service of best fit. Thus, quality service delivery should exhibit the following characteristics: Focus on customer expectations (responsiveness); Timely provision (reliability); Provide through a participatory approach (communities and other stakeholders); Cost effectiveness which is intended to maximize benefits and minimize costs; Provide fairly (equity); Sufficient to satisfy communities (adequacy); and Achieve goal of service provision (effectiveness).

According to Kroukamp (1999:300), quality service delivery can be maintained if the public service is rationalized and restructured, professional service ethos are infused in the service, civil servants are motivated through appropriate employment conditions and labour relations, human resource development and training are adopted, the state is democratized, representativeness and affirmative action are adopted, and management and institution building mechanisms are put in place.

South Africa is a state devoted to building democracy and good governance. Thus its approach to quality service provision should be such that it encapsulates democratic values of liberty, participation,

responsiveness, and equity. In the same vein the service should enhance good governance. Thus, a sound governance system exhibits the following principles considered appropriate for ensuring clean and strong governance: Legitimacy and rule of law; Public accountability; Openness, information and transparency; and citizen participation; and checks and balances (Kanyane, 2006:313).

South Africa has a service delivery and associated performance policy entitled *Batho Pele*. The advantages of *Batho Pele* as a policy are that it facilitates interactions between service providers and clients. It encourages the generation of new ideas to improve service delivery. Service provider tends to focus on what customers want (demand-side of service delivery). But for these gains to be meaningful, service standards must be clear. There should be a clear political will to provide quality service. Public officials should be trained in ethics and commitment to the customer. This calls for management acumen as well as leadership ability.

MANAGEMENT ACTIONS AND LEADERSHIP IN LOCAL GOVERNMENT

Management and its association with leadership is an old concept that existed many centuries ago. For example, many philosophers from all disciplines had different philosophies about the state/politics/management and leadership and some of their philosophies are still practiced today, depending on what type of leadership in place. Niccolò Machiavelli, John Locke, Aristotle, Max Weber, Frederic Taylor mention but a few. Machiavelli views of government as the provider of safety, power and prosperity, where the leader's primary concern was the security of the state while Hobbes and Locke argued that government was a means to an end (Bagby & Franke, 2001:625). Also Max Weber's doctrine contented that government should implement the functions of the state, that there was scientific knowledge to assist administrators in carrying out these tasks and lastly that there should be a competent chief executive to lead and manage the process (Spicer, 1998 in Schoeman, 2008:26) .

Many countries in sub-Saharan African governments were negatively affected by the colonial legacies and pro-market policies. This has crippled local government as the lowest sphere of government. In the South African context, the post South Africa government inherited colonial and apartheid legacies, but failed to correct the mistakes that were made in the past due lack of capacities to use new government systems and to translate policies to actions, the introduction of cost recovery policies as a way to build together approach and so on and so forth. Hence, the failure to do the right thing at the first time crippled service delivery particularly at the local government level. The post South African government had enthusiasm to provide services to all South African particularly those who were marginalised during the apartheid era. Excellent policies and programmes were in place, but the government lacked proper management acumen and leadership ability for the most part. The outcome of these is felt today through service delivery protests and to rectify this, leadership and management issues that guide the provision of services need significant improvement up particularly at the local government.

In this regard, leaders have distinctive characteristics as follows: Leaders trigger a person's "will to do"; leaders show the way and guide group members toward group accomplishment; leaders give vision to their followers and leading is a necessary ingredient of successful management; and a relationship in the person (the leader) influences others to work together willingly on related tasks to attain goals desired by the leader and/or group.

CONCLUSION

South Africa is acknowledged to be a leader in building democratic local government. However, such cannot be done adequately where the nature of service delivery is unacceptable to communities and leadership in service delivery is rather questionable. The problems confronting many citizens today are as a result of historical factors and pro-market policies adopted by the post South African government since 1994. South African society is still fragmented and this has remained a challenge to service delivery. Failure to deal with local government leadership and management challenges will hinder government's intention of providing quality services particularly the rural and semi-rural who were tremendously affected by the unequal distribution of services by the apartheid regime. The nature of leadership determines the nature of services provided to people. This means that it is not about the virtue of being a democratic government only, but to put people first in actions in providing quality services that give them quality life a through, and this can

make sense through active inclusion everyone in society. To attain this leadership together with management ability is crucial. Since government is a means to an end, it is important for it to be have leadership that is committed to go an extra mile to make people's lives better.

RECOMMENDATIONS

Massive education and training should be also the way to go: It remains vital to embrace education and training in any level of governing and leadership at all levels, especially the grassroots level where the very needy of services and goods reside. Education empowers and also offers conscious of utilising services effectively. This will help communities and governments work well together in the whole process of providing services and even in other developmental oriented activities.

Furthermore, information about services should be disseminated to everyone in the country most especially those in the remote rural: quality information is the key to service delivery. i.e. people must be informed of services/goods to be provided to them, and should there be changes due to any reason or circumstance, they are entitled to be informed. This is possible and achievable through setting channels on how information can be disseminated especially to the rural areas. However, this has remained a challenge at the local sphere of government and needs to addressed.

Performance monitoring and evaluation (M&E): Monitoring and evaluation is important since they are right measure of performance. There has been insufficient of M&E at the local government level and when it is done, it is none well. Monitoring and evaluation must be re-emphasised in all levels of government particularly at the local government level.

REFERENCES

- Abera, G. (2007). 'Assessing public sector service delivery in Namibia: A case study of the Ministry of Health and Social Services'. Unpublished Master's thesis. Tshwane University of Technology, Pretoria.
- Bagby, L. M. J. & Franke, J. L. (2001). 'Escape from politics: philosophic foundations of public administration'. *Management Decision* 39(8), 623--633.
- Crosby, P. B. (1992). *Completeness: Quality for the 21st century*. Dutton New York.
- Crous, M. (2006), 'QUALITY SERVICE DELIVERY THROUGH CUSTOMER SATISFACTION', *Journal of Public Administration* 41(2.2), 397.
- Fox, W. & Meyer, I. H. (1995), *Public administration dictionary*. Cape Town: Juta & Co Ltd.
- Juran, J. M. & Gryna, F. (1980). 'Quality planning'. Analysis McGraw-Hill Book Company.
- Kanyane, M. H. (1996). 'A paradigm shift from bureaucratic to a post bureaucratic public service for good governance and increased service delivery in South Africa. Excellence in Public Administration: Leadership and governance in age of globalisation'. Unpublished Document.
- Kaul, M. (2000). 'Management reforms in government'. CAPAM.
- Knouse, S. B. & Carson, K. D. (1993). 'W. Edwards Deming and Frederick Winslow Taylor: a comparison of two leaders who shaped the world's view of management', *International Journal of Public Administration* 16(10). 1621--1658.
- Kroukamp, H. (1999). 'Batho Pele': Putting the Citizen First in Transforming Public Service Delivery in a Changing South Africa'. *International Review of Administrative Sciences* 65(3), 327--338.
- Machiavelli, N. (1988). 'The Prince, ed. Quentin Skinner and Russell Price' Cambridge: Cambridge University Press.
- Makumbe, J. M. (1996). *Participatory development: The case of Zimbabwe*, University of Zimbabwe.

- Nsingo, S. (2002). 'Administration. Introduction to government studies', Centre for external studies: University of Namibia, Windhoek, Study booklet.
- Schoeman, R. E. (2008), 'The Public Policy Impact of the Changing Official Development Assistance Programme in Financing the HIV/AIDS Response in Southern Africa', PhD thesis, University of Pretoria.
- Sharkansky, I. (1975). *Public administration: policy-making in government agencies*.
- Skinner, Q. (1988), *Machiavelli: The Prince*, Cambridge University Press.
- Slotten, R. A. (1995). 'AIDS in Namibia'. *Social Science & Medicine* **41**(2), 277-284.
- Spicer, M. W. (1998). 'Cameralist thought and public administration'. *Journal of Management History (Archive)* **4**(3), 149--159.

CONCEPTUAL RELATIONSHIP BETWEEN E-SKILLS PROCEDURAL AND PEDAGOGICAL KNOWLEDGE OF VOCATIONAL BUSINESS STUDIES TEACHERS IN ICT-BASED CLASSROOM

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ABSTRACT

This study was designed to formally unveil the dynamic relationship between e-skills procedural and pedagogical content knowledge of Vocational Business Studies (VBS) teachers, especially as it applies to the effective delivery of Office Data Processing (ODP) teaching and learning in an ICT-enhanced classroom at Further Education and Training (FET) colleges. Based on the extended models of Shulman PCK and Mishra & Koheler TPACK a 65-item questionnaire using a five-point scale was developed and used in this study. The population of this study was made up of 107 novice and veteran VBS teachers in eight Further Education and Training (FET) colleges in Gauteng Province of South Africa. The findings of this study revealed that e-skills procedural has the highest direct impact on pedagogical knowledge and also teacher experience is an important construct that moderates the dynamic relationship between e-skills procedural and pedagogy.

INTRODUCTION

The preparation of teachers in the educational uses of technology appears to be a key component in almost every improvement plan for education and educational reform programs Davis & Falba (2002); International Society for Technology in Education (2002);Thompson, Schmidt, & Davis (2003). According to Gess-Newsome, Menasco & Willis (2003), while some issues in education take on the flavor of their social and historical context, others; such as how to prepare teachers to integrate technology in teaching and learning, remain almost ill-defined. Most importantly, research evidence shows that in spite of many efforts that researchers and educational institutions invested over the years in preparing teachers in the educational uses of technology, they (teachers) still lack the skills and knowledge needed to be able to teach with technology successfully. Rodrigues & Marks (2003).

In the first decade of democracy, the South African government embarked on radical reforms to the apartheid education system. One such set of reforms involved the restructuring of Further Education and Training (FET) sector, entitled “A new institutional landscape for public further education and training colleges: Reform of South Africa’s technical colleges Department of Education (2001) was released in September 2001. The reorganisation of the FET colleges sector brought with it the prospect of meeting the objectives of the country’s Human Resources Development Strategy DoE & Labour (2001). FET colleges would be transformed so that they offered learners “high-quality, lifelong learning opportunities that are essential to social development and economic competitiveness in a rapidly changing world” DoE (2001; 5).

Within a relatively short space of time (2000-2003) public FET colleges were merged from inequitable assortment of 152 small individual colleges to 50 mega-FET institutions, which are multi-site and diverse. Since then the college sector has witnessed huge investment by the state through the recapitalisation process which started in 2005. The government initiative to bridge the digital divide provided schools with fully equipped computer laboratories DoE (2008: 10). The Department of Education

started the integration of Information Communication Technology (ICT) at colleges and schools sector. In a study conducted at South African high schools, SAIDE (2009) found evidence that ICT added value to the learners' motivation and interest in their understanding of the relevance of computers in commerce and industry. The Department of Education (2004) also recognised a global revolution taking place in vocational education and training due to the realities of the information age and has issued a document entitled "Guidelines for ICT integration with National Curriculum Statement subjects in Grades 10-12". The document aims to assist schools and colleges in the process of integrating ICT with their teaching and learning and states that "learners would benefit significantly by using a computer to achieve these learning outcomes and assessment standards". The guideline for accounting and business studies suggests the following software for education at the schools: Pastel, QuickBooks, and Interactive Business DoE (2004).

In 2007, over 25,000 students enrolled for the new National Certificate Vocational (NCV) program in the 50 FET colleges in South Africa. The pass rate for that year was very disappointing at 20 percent, including the alarming rate of drop outs in all the vocational and technology courses particularly ODP (that is very crucial for Secretary) (Department of Education, 2007). The South African Institute for Distance Education (SAIDE) recently reported in their investigation and evaluation of the use of ICT for teaching and learning in FET colleges that no effective teaching and learning take place. They discovered that despite many FET colleges own between 60 to 100 computers with interactive teaching box and some have over 100 computers in their computer laboratories, many teachers still lack adequate knowledge and skills to use ICT in ICT-enhanced classroom environment (SAIDE, 2009).

When technologies are integrated into instruction in authentic ways, they have the potential to support meaningful change in teaching and learning. Without understanding and preparing for how best to use technologies in the classroom, however, instruction and learning may suffer through ineffective uses of the technologies (Culp, Honey & Mandinach 2003). According to Cox (1999), despite the teacher training program, there has been slow uptake of ICT in schools and colleges by a majority of teachers as some teachers have shown resistance towards effective use of ICT.

A recent study carried out by DoE (2007) showed that most FET colleges' ODP students are not trained with all the new technologies to prepare them for the world of work or self-employment. Pierson (2001) conducted a case study "Technology Integration Practice as a function of Pedagogical Expertise" and found out that technology use was related to instructors' teaching expertise. Pierson suggested that it is crucial to have experienced teachers who can effectively use technologies to benefit student learning and skills development. Because new technologies are becoming more pervasive in vocational and technology subjects in FET colleges, The research questions that guided the study from which this paper draws were: (1) What is the conceptual relationship between Vocational Business Studies teachers e-Skills Procedural, Pedagogical and Content Knowledge during actual classroom practice? (2) How different would pre-service VBS teachers be from in-service in using ICT tools and solving technical problems?

Integration of ICT in Business Studies Teaching and Learning

In South Africa, ICT is clearly integral to the existing new National Curriculum Statement (NCS) in schools and colleges (DOE, 2004). ICT is used in our colleges but there is little evidence of significant impact on vocational teaching and learning to produce technologically literate learners and enhance vocational teachers' competence. It is all the more important to understand teachers' ICT skills and knowledge needs, to discover their priorities for future development and to establish what will encourage teachers to adopt ICT where appropriate in their professional development. Most of the FET colleges in Gauteng Province in South Africa have acquired computers and access to the internet from the government with pre-service graduating vocational teachers that have pass through teaching experiences and training in the university, but there is little evidence of significant impact on teaching and learning to produce technologically literate learners Cole (2004). If vocational educators are to make the best use of computer and associated resources, they will need substantial support in a range of competencies. (South African Institute for Distance Education, 2007).

The recent Teacher Laptop Initiative (TLI) is part of the government's efforts to improve teaching and learning in the overall educational system in South Africa. The purpose was to help the 386 600 teachers in South Africa schools and colleges to effectively integrate ICT into their Pedagogical Content Knowledge (PCK). This effort turned out to be a major investment of over Rm550 per annum for the next five years to provide laptops for permanent teachers in nine South Africa provinces (Ndlovu, 2009). The primary concern when government makes huge investment in ICT is how the investment will positively influence the education system and the performance of teachers, learners and individuality. However, despite

the huge investment on ICT for the educational system “there is a paucity of empirical research evidence showing the investigation and assessment of the nature of the knowledge of pre-service and in-service teachers in the use of ICT to represent their ideas to the learners so as to enable them to understand the content of the subject matter, particularly in an ICT-based classroom instruction such as Office Data Processing (ODP)” in Business Studies. The National Examination Assessment and Measurement (NEAM) reports suggested that many learners lack ODP skills because of ineffective and underutilization of ICT infrastructure for teaching and there was alarming failure in ODP particularly and Engineering. (DOE, 2007).

Teachers’ Technology use in an ICT-Enhanced Classroom

Lack of ICT-related knowledge and skills globally among pre-service and in-service teachers has been seen as a major obstacle to realizing ICT-related objectives of colleges and schools. Pelgrum & Anderson, (2001). Generally, both pre-service and in-service teachers feel confident about basic skills but less about addressing technical application problems. Flanagan & Shoffner (2011) recently studied two experienced and novice English teachers’ methods in solving computer technical problems and discovered that both novice and veteran teachers rely on trial-and-error methods and often avoided using ICT tools when they did not have access to technological skills and resources. There are numerous challenges that exist in literature related to the integration of technologies in an ICT-enhanced classroom instruction. McKenna et al. (2007); and Schmidt et.al., (2009) have suggested that the most difficult challenge for teachers is lack of training and preparation for technology use in ICT-enhanced classroom instruction. Ruthven, Hennessy & Brindley (2004) report that “teachers trained with obsolete technologies often lack in-service technological training, as well as a desire for better preparation as pre-service teachers and continued preparation as in-service teachers”. There is need to explore the conceptual nature and relationship between VBS teachers’ e-skill procedural, pedagogical and content knowledge in the effective use of new technology tools in ICT-based classroom instruction.

METHOD

Instruments, Sample and Procedures

In this study quantitative and qualitative research methods of collecting data were utilized to address the research questions in this study. The choice of mixed-method explanatory research method was based on the premise that mixed method have an added value of better data triangulation, expansion of findings and reasonable interpretation (MacMillan & Shumacher, 2006:p.48). Using explanatory design, in which quantitative data collection and analysis was followed by a qualitative phase that provide a deep comprehensive understanding of vocational business studies teachers’ e-skills procedural and pedagogical knowledge, skills and attitude towards solving technical problems in an ICT-based classrooms (ontological world). The qualitative portion of this study provided us with opportunities for cross-unit comparison of pre-service and in-service ODP teachers’ technology use.

The quantitative data collection instrument used an ICT-based survey data Template (ICT/SDT) of pre-service and in-service vocational BS teachers’ e-skill procedural, functional, pedagogical and content knowledge (sPrFPACK). Based on the available literature, a 65-item questionnaire using a five-point scale was developed and used in the study to collect quantitative data from 107 pre-service and in-service ODP teachers in eight Further Education and Training (FET) colleges in Gauteng Province, South Africa. For in-depth observation, four novice and experienced ODP teachers were selected from two FET colleges that are well equipped with all ICT infrastructures. Data was collected in the form of questionnaires, classroom observations, and interviews. The survey address knowledge and skills of vocational BS teachers’ specific knowledge domains such as; word processing, spreadsheets, Audio Typing, Advance presentation, Interactive Teaching Box, Internet and Web technology. This is in line with National Certificate Vocational (NCV) new curriculum standard and ICT White paper policy (DoE, 2007: pp, 2-4). The survey questionnaire was pilot tested with 94 ODP teachers in 5 FET colleges in Gauteng province, South Africa. The findings from the pilot test revealed that all 65 items addressing 13 knowledge construct (refer to Table 1) were reliable since Cronbach alpha are all greater than 0.7. The teaching experience of these teachers ranged from 1 to 25 years. Data was analyzed through Partial Least Square (PLS) model and Stata V11 (2009).

Table 1: Knowledge Constructs Description and Corresponding Matrix

Knowledge Construct	Matrix
1. Pedagogical	A response that shows the skills in using different methods and strategies to teach the subject matter
2. Content	A response that shows the understanding of the subject matter (knowing)
3. Functional	A response that shows the ability to describe steps or rules that governs the use of ICT tools and the understanding of how to apply the rules and concepts to achieve the goal in a lesson.
4.e-skill Procedural	A response that shows an effective demonstration of the use of ICT tools to represent the subject matter with dexterity in solving recurrent trouble shooting problems without disrupting the lesson. (e-Skills)
5. Pedagogical content	A response that shows the use of different methods for understanding the subject matter(strategy, methods)
6 Pedagogical functional	A response that shows the knowhow of using different methods and strategies to describe the rules and right steps to follow in the subject matter(knowhow)
7. Procedural content	A response that shows an effective demonstration of the understanding of the subject matter and procedures to use ICT tools and solve recurrent technical problems as the need arises. (e-skill, know)
8. Procedural functional	A response that shows an effective demonstration of knowhow to describe the rules and functions of ICT tools and how to solve troubleshooting problems without disrupting the lesson (e-skills)
9. Procedural functional content	A response that shows an effective demonstration of the understanding and knowhow to describe the functions of ICT tools and solve troubleshooting problems in the subject matter.(e-skills, know-how)
10. Procedural functional pedagogical	A response that shows an effective demonstration of the knowhow of using appropriate methods and following the right steps to teach the subject matter and solve technical problems without disrupting the lesson. (e-skills, knowhow, strategy)
11. Procedural pedagogical content	A response that shows an effective demonstration of the use of appropriate methods and right steps for understanding the subject matter and troubleshoot technical problems (e-Skills, strategy, know).
12. Functional pedagogical content	A response that shows the knowhow of using appropriate methods and strategies for understanding the subject matter and describing the rules and steps correctly(Know how ,strategy, knowing)
13. Procedural functional pedagogical content	A response that shows an effective knowhow of using appropriate methods and following the right steps for understanding the subject matter and solve technical trouble shooting problems without disrupting the lesson. (e-skills, know how, strategy, knowing)

Figure 1 shows the e-skill Procedural, Functional, Pedagogical and Content Knowledge sPrFPACK framework used to explore the conceptual relationships between VBS teachers' e-skills procedural and pedagogical content knowledge in an ICT-based classroom context. This framework is useful for exploiting extensive components of technology knowledge and it defines thirteen knowledge types based on Technological, Pedagogical and Content Knowledge (TPACK) extension.(Mishra & Koehler, 2008). Table 1 shows the explanation of the knowledge constructs and the corresponding matrix.

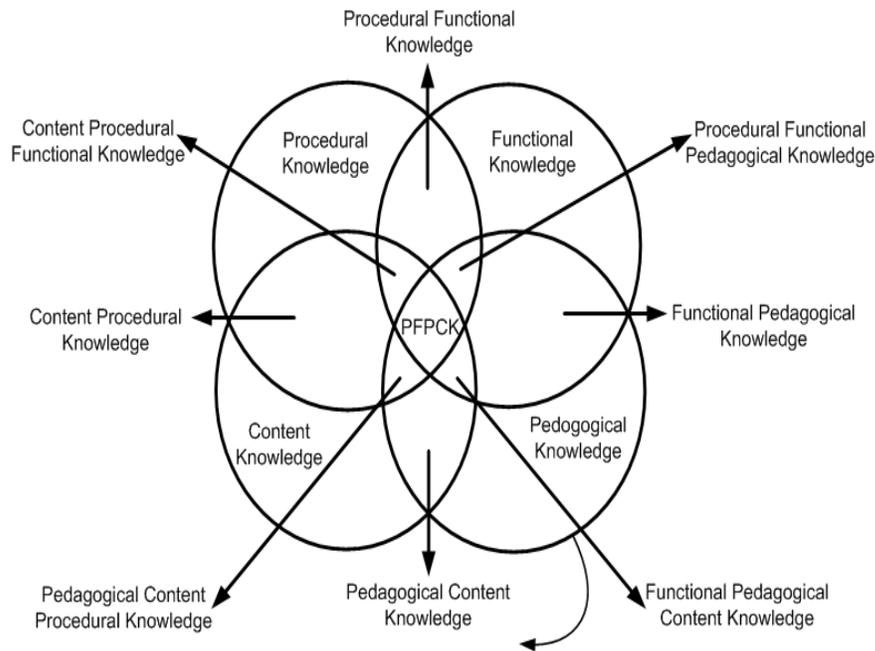


Figure 1: The sPrFPACK Framework (Adegbenro, Olugbara & Mwakapenda, 2012)

Conceptual Relationships among PrFPACK of VBS Teachers

Research question 1: What is the conceptual relationship between VBS teachers' PrFPACK during actual classroom practice in ICT-based classroom? A closed end questionnaire was distributed to all the pre-service and in-service VBS teachers in eight FET colleges in Gauteng province with 65 items to test the suggested conceptual relationships between content Knowledge (CK), Pedagogical Knowledge (PK), Functional Knowledge (FK) and e-skill Procedural Knowledge (sPrK) quantitatively. The raw data was captured into the spread sheet and imported into the software 'Partial Least Squares' (PLS). The summary of the structural model specification is shown in Table 2 below.

Reliability of the Measuring Instrument

The questionnaire was given to 107 novice and experienced ODP teachers in eight FET colleges in Gauteng and was used to test for reliability using Cronbach's Alpha as demonstrated in Table 2. The results obtained and listed in Table 2 below show that all constructs showed good reliability, all are above the threshold of 0.7 (Pallant, 2005). e-skill Procedural (sPrK) had the highest reliability with a Cronbach's Alpha (α) value of 0.8704 out of the four constructs. The implication of this is that the instrument used may reliably be used on different datasets and it will produce good results.

Table 2: Summary of Structural Model Specification

	AVE	Composite Reliability	R Square	Cronbachs Alpha	Communality	Redundancy
CK	0.575080	0.870763		0.815044	0.575080	
Experience	1.000000	1.000000		1.000000	1.000000	
FK	0.616162	0.888396	0.556662	0.841267	0.616162	0.342574
PK	0.572738	0.869900	0.656367	0.812880	0.572738	0.172530
SPK	0.658591	0.906002	0.746352	0.870452	0.658591	0.190984
SPK * Experience	0.415780	0.764592		0.868619	0.415779	

Testing the Relationships

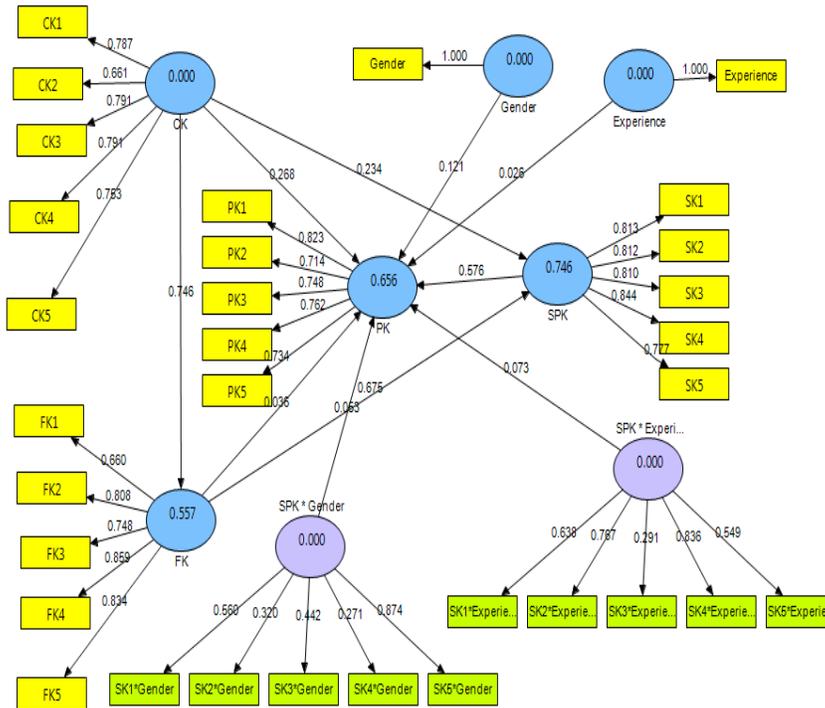


Figure 2 illustrates the hypothesized relationships between the constructs of the model

Hypothesis Testing

Researchers McDonald & Ringo (2002); Hair et al., (2006) recommended that for significance, the critical ratio (CR) also known as the t-value must exceed ± 1.96 . The standardized parameter estimates demonstrated in the model, Figure 2, the Latent Variable Correlations shown in Table 3 and the critical ratios illustrated in Table 4 were compared to deduce the strength of the paths and the interpretations of hypotheses within the model

Table 3: Latent Variable Correlations

	CK	Experience	FK	PK	SPrK	SPrK * Experience
CK	1.00000					
Experience	0.278143	1.000000				
FK	0.746098	0.245295	1.000000			
PK	0.698504	0.266688	0.700572	1.000000		
SPrK	0.737770	0.302079	0.849740	0.773131	1.000000	
SPrK * Experience	0.006070	0.080145	0.048183	0.123240	0.089360	1.000000

Table 3 above shows the correlation between variables and Table 4 below demonstrates the extracted standardized significance levels of the structural model. The values for the critical ratios between the variables that were needed to test the hypothesized relationships were obtained as showed in Table 4.

Table 4: Extracted Standardized Significance Levels of the Structural Model

Paths	Estimate	S.E.	CR	P	Implication
FK <---> CK	.746	.106	3.829	***	Supported

Paths		Estimate	S.E.	CR	P	Implication
PK	<--- CK	.268	.122	3.934	***	Supported
SPrK	<--- CK	.234	.150	3.853	***	Supported
PK	<--- FK	.035	.097	1.556	.060	Not Supported
SPrK	<--- FK	.675	.131	3.852	***	Supported
SPrK	<--- PK	.576	.122	3.965	***	Supported

*** p < 0.001; ** p < 0.01; * p < 0.0

RESULTS AND DISCUSSION

Relationship Outcomes

As indicated in Table 4, the hypothesized relationship between Content Knowledge (CK) and Functional Knowledge (FK) produced a standardized estimate of 0.746, a high correlation of 0.746 and critical ratio of 3.829. The critical level value is above the threshold and estimate value is positively high indicating that the relationship is supported. This means that content knowledge which is the in-depth understanding of the subject matter is directly related to functional knowledge which represents the know how to describe the rules, steps and procedures in the content but not actually performing the action. Shulman (1987) describes content knowledge of the subject matter as a critical aspect in understanding the disciplinary practice of a given subject. This knowledge should include the key concepts, theories, ideas etc. While Ferris (2009) argued that content knowledge as declarative knowledge which is “know that”, is a form of knowledge that is associated with representation of facts rather than the assimilation of facts into constructs for effective action and solve recurrent problems without disrupting the lesson. Biggs (1999) describe functional knowledge as theoretical technology knowledge, having the ability to know how to describe a function and its rules in a content but not to articulate description of what is known and put into practice effectively.

The relationship that was suggested to exist between Pedagogical Knowledge (PK) and Procedural Knowledge (PrK) e-skill exhibited a standardized estimate of 0.576, a correlation of 0.773131 and a critical ratio of 3.965 as shown in Tables 3 and 4. These values indicate that this relationship is significant. PK as the method of instruction is directly connected to the procedure in performing the action and solve recurrent trouble shooting problems. The method of instruction will enhance the appropriate skill performance which leads to clear comprehension of the content. Experienced teachers were observed demonstrating by giving the step-by-step instruction to students using the iBOX to project onto the smart white board. Beginner teachers were also observed verbally explaining the rules, step-by-step instructions and allowing the students to ask questions whenever they were confused.

E-skills Procedural Knowledge PrK

According to (Niess , 2008) and (Biggs, 1999) “Procedural knowledge is the actual application of skills in using technology tools”. All the content of the 10 unit course in Business Studies, ODP NC(V) level 2 in FET college are Computer System based and are all taught with computer system connected to Interactive Teaching Box, projected on the white flat board with internet connectivity and functional Window Media to teach Audio Typing. It was observed that the business studies novice teachers with 2 years teaching experience struggle to achieve the lessons objectives without the effective use of technological tools. Experienced teachers were observed often using iBOX connected with the overhead projector and the Computer System Unit to transform the concept of the content with the functions, and effective pedagogy as the need arose. It was observed that experienced teachers focused on the content, technological tools and functions, the steps and rules the learners must follow to successfully use the ICT tools to enable learners to acquire the required skills. Beginner teachers were hindered by the lack of technical skills to solve recurrent technical troubleshooting problems which made them to always abandon the ICT tools, despite the awareness of the benefits and importance of the technology tools. As (Shafer & Bruewer, 2011) reported “Tasks are designed to be pleasantly frustrating when there is no just-in-time technical support, and the strategy learned in one task becomes a skill in subsequent tasks, leading to a cycle of novice-expertise problem solving activities.” The experienced VBS teachers’ classroom practices support (Shafer & Bruwer’s, 2011) findings. The teachers were able to use all the technology tools effectively and solve all recurrent technical trouble shooting problems through the skills learnt from the technicians over the years of teaching in FET college. As (Selinger, 1996) confirm that, the “Majority of teacher training students are

graduating in an information age without proper guidance on how to use technology tools in the classroom”. However, the context is now changing. As one of the experienced ODP teacher remarked:

The students are just too fortunate compared to our time when we are trained with obsolete manual typewriters. I learnt the technical skills to solve technical problems when the need arises from the technologists on-the-job, by asking them questions and practicing what I have learnt from them instantly, then I became proficient over the years.

The findings in this study gives an in-depth knowledge of the conceptual relationship between pre-service and in-service VBS teachers e-skills procedural, pedagogical and content knowledge demonstrated for their classroom instruction in an ICT-based classroom environment. This study also suggested that there will be a significant relationship between Content Knowledge (CK) and e-Skill Procedural Knowledge (PrK). Table 4 shows that this relationship exhibited a critical ratio of 3.853, a correlation of 0.737770 and a standardized estimate of 0.234. This implies that the relationship between the two variables is significant and that the suggested relationship exists. According to Gavota (2010: 496) Schneider and Stern; Niess (2006) and Biggs (1999), procedural knowledge is knowing how to perform a task correctly at a given point in time and how to solve specific problem as the need arises. Gavota (2010) stated that PrK represents the knowledge that can be directly applied to a task, to perform it correctly. As observed in experienced VBS teachers’ classrooms, experienced teachers often explain the content of the lesson such that the students’ can understand by demonstrating on the smart white board and troubleshooting technical problems, they do this as the need arises without disrupting the lesson.

Analysis of results in Table 3 indicates that experience has a significant influence on all the four suggested relationship. This implies that teachers with experience will demonstrate competency in Content Knowledge (CK) (i.e., having an in-depth understanding of ODP content), Pedagogical Knowledge (PK) (i.e., competent in choosing the appropriate method of teaching and strategies as the need arises), Functional Knowledge (FK) (i.e., competency in being able to describe the concepts, rules and functions of ICT tools). For example, during the classroom observation, in-service (experienced) teacher three (T3) was teaching “touch typing” as a topic in Office Data Processing. She described to the students the steps and rules they need to follow for speed and accuracy after she introduced the topic with clear explanation. One student encountered a printing problem; the student could not print her document at the given period of time. The experienced teacher three (T3) used a flash drive to copy the students’ work from the computer and use another system unit to print the students’ document without disrupting the lesson. The print option of the students’ computer was not responding. Procedural Knowledge (e-Skill) (i.e., having the ability to perform a task correctly at a given period of time on the system unit with the ability to use the tools to solve problems in the content). As compared with pre-service (beginner) VBS teacher two (T2) who often have her lesson disrupted because of technical trouble shooting problems which could not be solved by the teacher. Table 3 analysis agreed with many researchers findings Tozoglu & Varank (2001), Olsen (2000). Their studies showed that experienced teachers are able to effectively enhance students’ motivation in Business Studies and also promotes interest and attention in classroom activities. Olsen (2000) asserted that the effective use of technology by experienced teachers is one of the major strategies in improving throughput. Pierson (2001), conducted a case study on technology integration practice and found that technology use was related to instructors’ teaching expertise.

CONCLUSION AND RECOMMENDATIONS

As Clausen (2007) suggested, “If an institution supports new teachers and provides opportunities for professional growth, teachers are more likely to effectively integrate technology into instructional practices.” Beginner teachers have limited or no teaching experience, thus they may construct e-skill procedural and pedagogical knowledge differently from experienced teachers. Archambault & Carlson (2011: p.99) reported, “Creating technologically rich, pedagogically sound methods that are modeled and taught in their teacher education courses increases the likelihood that teachers will use technology in their classrooms when they teach”. This calls for urgent training of pre-service Business Studies teachers in an innovative pedagogical method of teaching Office Data Processing and other Business studies subjects with technological tools. Vocational teachers’ training institutions should include a holistic instructional technological and pedagogical e-skills that encourages deliberate and creative use of ICT tools with strategies to solve basic technical problems.

LIMITATIONS

The sampling procedure and the nature of the sample were restrictive. The selection of ODP novice and experienced teachers that were interviewed and observed was confined to only two FET colleges in Gauteng province out of the eight FET colleges that were surveyed. However, this limitation did not appear to have much impact on the sample composition in terms of experience. Further, the cases in this study enabled the researcher to obtain a deeper reflection on the context of ODP instruction in business studies.

REFERENCES

- Archambault, L., & Carlson, D. L. (2011). "Poetry in Motion: Using Voice Thread to prepare 21st Century English Teachers". *Research Highlights in Technology and Teacher Education. SITE*.
- Biggs, J. (1999). "Teaching for quality learning at University: What the student does". *Society for research into Higher Education Open University Press*.
- Clausen, J. (2007). "Beginning teachers' Technology use: First year teacher development and institution context's effects on new teachers' instructional technology use with Students. *Journal of Research and Technology in Education. 39(3), 245-261*.
- Cole, A.J. (2004). E-learning: The type and the reality. *Journal of interactive media in Education (Designing & Developing for the Disciplines special issue) 12* <http://www.Jme.open.ac.uk/2004/12>.
- Cox, M. (2005). "ICT and Pedagogy: A review of the research literature". DFES Project report ICT in school research and Evaluation series 17, 1-51 Becta:London.
- Culp, K. .M, Honey, M., & Mandinach, E. A. (2003). Retrospective on Twenty years of Educational Technology Policy". (U.S. Department of Education ED-01-CO-0026/0017).
- Davis, K. S., & Falba, C .J. (2002). Integrating technology in Elementary Pre-service Teacher Education: Orchestrating scientific inquiry in meaningful ways. *Journal of Science teacher Education, Vol. 13, no (4) 303-329*.
- Department of Education. (2004). "White paper on Education: Transforming Learning and Teaching through ICT". *Government Gazette, 2 September, 2004. (No26762). (2004a)*
- Department of Education SA. (2008). "The draft National Policy Framework for lecturer qualifications and development in FET colleges in South Africa.
- Department of Education. (2007) *National Examination Assessments and Measurement, NEAM, South Africa*.
- Ferris, T.L.J. (2009) . *On the method of research for systems engineering. 7th Annual Conference on Systems Engineering Research. (2009).20-21 April, Loughborough University, Loughborough, UK.*
- Flanagan, S., & Shoffner, M. (2011). "Two Teachers' Technology Use: Recommendations For English Teacher Preparation". *Research Highlights in Technology and Teacher Education. Society for Information & Teacher Education. USA (2011).*
- Gavota, M.C. (2010) " Computer-supported peer commenting. *Journal of Vocational Education and Training. Vol. 62, No 4, Routledge.*
- Gess-Newsome & N.G. Lederman (Eds). (2002). " Examining Pedagogical Content Knowledge: The Construct and its Implications for Science Education". (vol.6). Dordrecht, Netherlands: Springer.
- Hair, J. Black, B. Babin, B. Anderson, R. and Tatham, R. (2006). *Multivariate Data Analysis 6th ed., Upper Saddle River, NJ: Prentice-Hall.*

- International Society of Technology Education (2009). “*National educational technology standards for teachers (NETS-T)* 2008. Retrieved February, 13 2009, [http://www.iste.org/Content/navigationMenu/NETS/For Teachers /2008 Standard/NETS_for_Teachers_2008.htm](http://www.iste.org/Content/navigationMenu/NETS/For%20Teachers/2008%20Standard/NETS_for_Teachers_2008.htm)
- Mishra, P. & Koehler, M. (2008). “The components of the TPACK Framework.” www.TPCK.org (2008).
- McDonald, R. P., & Ringo Ho, M.,(2002). Principles and practice in reporting structural equation analyses. *Psychological Methods*, 7 (1), pp. 64-82.
- McMillan, J. H. & Schumacher, S.(2006). “*Research in Education: Evidence-based inquiry*. Pearson Education Inc. USA (2006).
- Mckenna, M .C, Reinking, D & Zucker, T. A.. (2007).Technology in Literacy instruction. In L.B. Gambrell, L. & M. Pressely (Eds), “*Best practices in literacy instruction*” (pp. 104-126). New York: The Guilford Press. (2007).
- Niess, M .L., & Biggs, J.(2006). “Preparing teachers to teach Science and Mathematics with Technology: Developing TPACK”. *Teaching teacher Education*. (2006). 21, 509-523
- Niess, M.L. (2008). “ Guiding pre-service teachers in developing TPACK” in AACTE.
- Ndlovu, S. (2009).“ Teachers to get allowance for Laptops” Retrieved on July 30, 2009 from <http://www.int.iol.co.za/>
- Olsen, F. (2000). “Learn to rely on online remedial Math course. *The chronicle of higher education*”. 46. 24: A57 (10 *Expanded academic ASAP*. Thompson Gale. University of Johannesburg.
- Pallant, J. (2005). *SPSS Survival Manual*. Open University Press
- Pelgrum, E., & Anderson, L. (2001). *Appropriate use of ICT in facilitating teaching and learning*. Edb. Gov.hk//EN/content.447.
- Pierson, M E. (2001). Technology Integration practices as function of pedagogical expertise. *Journal of Research on Computing in Education*, Vol.33, no. 4, 413-429.
- Ribaux, L. (2010). Teacher professional development focus on the integration of new pedagogy as well as in Integrating Technology into the classroom. South African Institute of Distance Education (2003). *The use of computers in Schools*. URL: <http://www.SAIDE.org.za>.
- Rodrigues, S., & Marks, A. (2003). Developing Science and ICT pedagogy and content knowledge: A model of continuing professional development. *Innovations in Education and Teaching International* 40(4), 386-394
- Ruthven, S, & Hennessy, P., (2004). Teacher representations of the successful use of Computer-based tools and resources in secondary-school English, Mathematics, And Science. *Teaching and Teacher Education*, Vol. 20, 259-275
- South Africa Institute for Distance Education. (2005). “Being a Vocational Educator. A guide for Lecturers in FET colleges info@saide.org.za.
- SAIDE. (2009). An Investigation Into the usage and Efficacy of the PLATO Learning System in Selected FET Colleges, SA. SAIDE Newsletter Vol.15, No. [http](http://www.saide.org.za) retrieved 6th November.
- Schmidt, D., Baran, .E. Thompson, A., Koehler, M.J., Mishra, P., & Shin, T. (2009). “TPACK: The development and Validation of an Assessment Instrument for Pre-service Teachers. Paper presented at the 2009 Annual meeting of the *American Educational Research Association*. San Diego, California.
- Selinger, M. “Beginning Teachers Using IT: (2003). Open University Model, *Journal of Information Technology for teachers Education*, Vol. 5, 253-270.

Shafer, K.G. & Bruwer, A .C. (2011). "Video game design principles in Logo impact Teacher candidates" Technology Integration in Research Highlights in Technology & Teacher Education. *Society For Information Technology & Teacher Education SITE*. pp. 251-262

Shulman, L.S., (1987). Knowledge and teaching: Foundation of the new reform. *Havard Educational Review*, Vol. 57, (1987) 1-22.

Tozoglu, L & Varank, K.. (2001). Florida State University of Technology explosion and its impact on Education, Conference paper, (obtained through ERIC Database).

MOTIVES FOR CORPORATE GOVERNANCE DISCLOSURE IN WEAK INSTITUTIONAL SETTINGS

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ABSTRACT

The aim of this paper is to find out the external drivers for corporate governance disclosure in weak institutional settings. The study used secondary data to gather information and adopts Di Maggio and Powell's (1983) institutional isomorphism to understand the motives for corporate governance disclosure. The study found that corporate governance disclosure practices in a setting with poor market infrastructure, poor economic growth and severe human capital challenges are motivated in ways that are different from documented evidence in existing literature. The study also found that pressure from international organizations, bilateral and regional relationships and affiliation of professional associations to international and regional bodies are key drivers for corporate governance disclosure in a poor economic growth country.

INTRODUCTION

The purpose of this paper is to generate further insight on the motives for corporate governance disclosure in a market setting characterized with poor market infrastructure. This is important in order to articulate firms' disclosure behaviours in a country with poorly functioning markets and thereby improve our understanding on their potential policy and regulatory implications. While previous corporate governance disclosure studies suggest motives such as capital market transaction, corporate control contest, stock compensation, litigation cost and propriety cost hypotheses for disclosures, the literature is silent on the motives for disclosures in environments with severely underdeveloped market, political infancy, and poor human capital record which makes identified motives in the literature inconsequential in these unique settings.

“Corporate governance has dominated policy agenda in developed economies for more than a decade and it is gradually warming its way to the top of the policy agenda on the African continent” (Abor and Adjasi, 2007: 111). Moreover, we know little about the factors that influence corporate governance disclosure in developing countries, particularly in less developed African countries. In this context, this study attempts to provide empirical evidence on the motives for corporate governance disclosure in a poor economic growth country in Southern Africa (i.e. Swaziland). In addition, this study will fill the gap in the literature since research on the drivers for corporate governance disclosure in less developed economy such as Swaziland is underdeveloped.

Swaziland is a Sub-Saharan African country with poor economic growth. Swaziland's governance consists of traditional system and western models system [African Development Bank (ADB), 2005]. The King of Swaziland (King Mswati III) is the head of both systems and has power over legislative, executive, and judicial (ADB, 2005). Swaziland faces serious political and socio-economic challenges such as political parties are banned in the country, HIV infection rate is very high (World Bank Development Indicator, 2011), unemployment rate is more than 40% [Central Bank of Swaziland (CBS), 2010/2011:43], and poverty level is 69.2% (World Bank Development Indicator, 2011). With this respect, it is important to understand the drivers for corporate governance disclosure in this country. Thus, the paper poses the main research questions: what are the external factors that motivate for corporate governance disclosure practices in a country with poor economic growth?

Further, in Swaziland, as in many African countries, there is high incidence of political favouritism and government's appointments are not always based on merit or measurable performance (Dlamini, 2005). The problems and challenges facing Swaziland government constitute a demand for effective corporate governance practices, transparency and honest disclosure. Therefore, an analysis of the motives for corporate governance disclosure in the context of Swaziland as a less developing country will be of great value to academics and business managers to understand the disclosure practice mechanisms in a setting with poor market infrastructure and poor economic growth.

In the next section, this study provides a literature review on the subject matter followed by description of the regulatory and reporting framework in our focal country (i.e. Swaziland). Following sections describe the research methodology, findings and analysis. The last section provides the conclusions and identifies future research opportunity on the subject.

LITERATURE REVIEW

Corporate Governance Convergence

Corporate governance continues to be a hotly contested issue in terms of its meaning and boundaries (Naidoo, 2002). While corporate governance is presented from a somewhat narrow purview of micro-economic concerns of firms and its constituents by some authors (see, Cadbury, 1992; Shleifer and Vishny, 1997), corporate governance has often been presented by international organizations such as the Organization for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF) and the United Nations (UN) from a more broader and macro-economic perspectives. For instance, Shleifer and Vishny (1997: 737) noted that "Corporate governance deals with the ways in which suppliers of finance to corporation assure themselves of getting a return on their investment". On the other hand, the OECD (2004a) suggested that good corporate governance is capable of improving the confidence of domestic investors, lead to reduction in cost of capital and may facilitate access to much needed capital for productive activities. Yet there are others that see corporate governance from completely different perspective. For example, Bhasa (2004) pointed out that corporate governance concerns the desirability or otherwise of the convergence of global corporate governance best practices and global legal system. However, "companies are governed within the framework of the laws and regulations of the country in which they operate" (King II, 2002: 15) and "governance practices are not uniform across nations" (Bhasa, 2004: 5). The OECD (2004b) also pointed out that there is no single framework that is appropriate for all markets as corporate governance arrangements and institutions vary from one country to another. There seem to be more consensus on the fact that country face different institutional constraints and therefore convergence of corporate governance practices may be difficult to achieve (Bhasa, 2004; OECD, 2004b). As a result, over the years, a number of committees have been set up in various countries to look into the various aspects of corporate governance (Hendrikse and Hendrikse, 2004: 121) such as Cadbury Committee (1992), CalPERS Global Corporate Governance Principles (1996), Hampel Committee (1998), OECD Principles of Corporate Governance (1999, 2004), Kumar Mangalam Birla Committee on Corporate Governance Principles (2000), South African King Report on corporate governance (1994, 2002, 2009), and others.

However, despite the different legal and institutional structures around the world, the demand for adopting an efficient corporate governance policies and practices is universal among most investors (Spanos, 2005). Thus, international guidelines have been developed by bodies such as the OECD, the International Corporate Governance Network, and the Commonwealth Association for good corporate governance practice among others (King II, 2002) to encourage corporate governance best practices among member states. For instance, OECD (2004a) set up principles which all countries including non-OECD countries could use if they wish to develop their own code of corporate governance. Like OECD, South Africa in 1994 developed its own code of corporate governance called the 'King Report 1994' or 'King I' which was followed by a more revised document referred to as the King Report on corporate governance for South Africa 2002 or 'King II'. Recently, South Africa issued King III which was released at the beginning of September 2009 and it came into effect on March 1, 2010. It should be noted that most of Southern African countries including Swaziland still follow South African King II report on corporate governance model. Considering the corporate governance practice, this study wishes to provide an overview of corporate governance reporting framework in Swaziland.

Corporate governance disclosure practice

The corporate governance principles in respect of financial transparency and information disclosure practice have become more prominent around the world especially due to the global financial crises. Bashin and Reddy (2011: 393) suggested that “corporate governance disclosure is a fundamental theme of the modern corporate regulatory system”.

According to OECD (2004a), the corporate governance framework should ensure that all material matters regarding financial situation, performance, ownership, and governance of the company are disclosed accurately and timely. Adequate corporate “disclosure helps improve public understanding of the structure and activities of companies, their policies and performance” (Hong Kong Society of Accountants, 2001: 4) and subsequently, it improves transparency and results in good corporate governance practice (Bashin and Reddy, 2011). In line with this, this study will provide the motives for corporate governance disclosure practice in Swaziland.

Legal framework for corporate reporting and disclosure in Swaziland

Legal and regulatory frameworks are country specific, and these impacts on disclosure practices (Akhtaruddind, 2005). In Swaziland, accounting and corporate disclosure is underpinned by requirements specified in the Companies Act 2009 and Swaziland Stock Exchange. Listed companies are also required to comply with the specific requirements concerning corporate governance and disclosure. Listed companies are required to disclose relevant information in the annual financial statements in compliance with SSX requirements such as borrowings, headline earnings per share, directors’ interests, share incentive schemes, profit forecasts, full details of all special resolutions passed, individual director’s fees, salary, commission, bonus, share options, etc. (Www.ssx.org.sz). The new Companies Act 2009 also addresses issues related to accounting records and disclosures. For example, in accordance with Section 245 of the new Act, “every company shall keep such accounting records as are necessary fairly to present the state of affairs and business of the company and to explain the transactions and financial position of the trade or business of the company” (Companies Act 2009: 110). Financial statements are prepared in accordance with International Financial Reporting Standards (IFRS) and the requirements of Swaziland Companies Act 2009.

The Swaziland Institute of Accountants (SIA) is the only one professional accounting body in Swaziland. Since SIA is not a member of the International Accounting Standards Board (IASB), SIA is not legislatively strong in terms of issuing accounting and reporting standards. Consequently, the institution persuades the government for adoption and implementation of standards issued by the IASB. SIA fosters acceptance of International Accounting Standards (IAS) and International Standards on Auditing (ISA). However, besides the IASs, Swaziland complies with the disclosure provisions specified in the Companies Act 2009 which are mandatory (see, Section 256 - 258 of Swaziland Companies Act 2009).

METHODOLOGY

The study relies on documentary evidence. It is based on the conceptual analysis and personal observations of one of the researchers considered in this study. The personal observations mainly constitutes of one of the researcher’s work experience in our focal country (i.e. Swaziland) for more than 10 years that provides unique insights on the external motives for corporate governance disclosure in the country. Further, in order to provide an answer to the research question and obtain the objective, the study adopts the idea of Di Maggio and Powell’s (1983) institutional isomorphic pressures. The unfortunate implication of the deficiency is that the majority of the previous studies and their prescriptions on corporate governance motives, mechanisms, and outcomes require reconsideration in the context of the external environmental influence on firms’ governance paraphernalia. As such, as a benchmark, this study uses Di Maggio and Powell’s (1983) three types of isomorphism (coercive, mimetic, and normative) to argue and understand the external drivers for corporate governance disclosure. It should be noted that, with regard to Di Maggio and Powell’s isomorphism, there are several criticisms that placed by other researchers (see, Hambrick, Finkelstein, Cho and Jackson, 2005; Ashworth, Boyne and Delbridge, 2007). However, despite the criticisms, the idea of Di Maggio and Powell’s isomorphic pressure has been widely applied in many studies on management fields, cross-country analysis, environmental protection policies, and economic activities issues to identify and clarify the role of institutions for empirical investigations (see, Hillman, Withers and Collins, 2009; Frank, Hironaka and Schofer, 2000; Guler, Guillen and Macpherson, 2002; Pfeffer and Salancik, 1978). With this respect, this study uses Di Maggio and Powell’s three isomorphic forces in identifying and determining the external pressures for corporate governance disclosure practices in jurisdictions with severe structural and infrastructural imbalance.

FINDINGS AND DISCUSSION

The data analysis involved conceptual analysis and Di Maggio and Powell's (1983) idea with regard to institutional isomorphism has been applied to understand the external factors that influence for corporate governance disclosure.

The External Coercive Drivers for Corporate Governance Disclosure in Swaziland

We identified two main sources of the external coercive forces for corporate governance disclosure in the country. First, the pressure from international organizations and secondly, pressure from regional arrangements with other neighbouring countries. According to Di Maggio and Powell (1983), coercive pressure could be legislative or persuasive; and could be multi-layered, linked to benefits by the focal organization from a conferring organization. They all aim, inadvertently, to drive the focal actors towards actions intended to maintain legitimacy with its conferring publics. In terms of the international organizations, we identified the influential roles of the World Bank Group, IMF and the OECD's corporate governance principles, while the regional influences appear to come mainly from the Southern African Development Community (SADC) and Southern African Customs Union (SACU). We now take these in turn.

World Bank Group, IMF and the OECD Corporate Governance Principle

In 1999, both World Bank and IMF started the standard and code initiative, now popularly referred to as the Report on the Observance of Standard and Codes (ROSC). This initiative enables the organizations to assess member states' compliance and observance of international standards and codes in 12 key areas including corporate governance. Countries' corporate governance postures are benchmarked against the OECD principles. Based on the overall corporate governance situation in Swaziland, African Development Bank (ADB) (2005:27) stated, "Swaziland government has a long way to go in complying with the OECD Principles of Corporate Governance". In complying with the OECD Principles of Corporate Governance, ADB (2005:46) recommended that it is necessary for Swaziland government to review the existing regulatory framework and corporate governance systems including disclosure practices.

Although assessment is at the request of member state however, non-compliance or poor report could have detrimental implications for the country concern, especially developing countries. This is coupled with the well-documented influence both organizations have in the determining the internal policy direction of client countries (Dreher, 2006; Taylor, 1997). Poor showing in the ROSC could have adverse effects on the investment destination by global investors. Apart from this, to benefit from the WB and IMF loan, countries would have to conform to required level of economic and governance transparency and accountability. The initiative has assessed and reported on over 100 countries so far. It is therefore becoming a vital tool for assessing level of corporate governance at national level and invariably pushing countries towards common corporate governance practice. It is not surprising that the Swaziland government has eventually invited IMF for an assessment of compliance with codes and standard in the country.

Regional Arrangements (SADC and SACU)

Swaziland has bilateral arrangements with countries in the Southern African region including through the SADC and SACU. The SADC emerged from the Frontline State; an organization comprising mainly Southern African states set up to facilitates attainment of independence by member states. However, following full independence by most member state, its focus has now moved towards good governance and economic development within the region. The SADC through its objectives that sees a common future and path for the countries in the region, and institutions such as the Development Finance Resource Centre (DFRC) organizes capacity building and training programmes for member states on several issues including corporate governance.

Furthermore, the SACU also provides another strong platform for common economic and governance pattern in the region through common custom arrangement. Revenue from SACU is deposited in a common revenue pool, which is under the custodian of South Africa. The BLNS (Botswana, Lesotho, Namibia, and Swaziland) countries get nearly half of the SACU revenue though the total GDP of BLNS countries is less than 10% of SACU member states' GDP (www.sacu.org). Swaziland relies heavily on

SACU receipts for years; more than 60% of Swaziland's total revenue comes from SACU receipts. South African as the major economy in the region makes most contribution to the fund and consequently wields sufficient influence in its distribution.

These regional relationships require compliance to common pacts and practice. With South Africa as the leading economy in the region, most of the corporate governance practice agenda could be expected to generate from the country. It is therefore not surprising that Swaziland along with other countries in the region is following South African footsteps in their corporate governance ideas with regard to disclosure practice.

The external mimetic drivers for corporate governance disclosure practice in Swaziland

Di Maggio and Powell (1983) described this as threat to legitimacy arising from strategic ambiguity and uncertainty, which may lead focal organization to adopt imitation and modeling of organizations considered more successful as solution to perceived legitimacy gaps.

Swaziland is experiencing a period of sustained poor economic performance evidenced with falling FDI, especially since the end of Apartheid in South Africa in 1994, and high reliance on revenue from SACU. On the other hand, South Africa maintains an impressive economic performance, as the largest and most developed economy in Africa. It is the largest trading partner with Swaziland with about 70% of its exports going into South Africa (World Bank Development Indicator, 2011) who is also its main source of imports.

The country appears to be modeling its policies on South Africa in order to improve its own economic fortunes. For example, its currency is pegged at 1:1 with the South Africa's Rand, which requires substantial coordination by the South African authority and indicates significant dependent on the monetary and fiscal policy of its superior neighbour. There is also a heavy presence of South African businesses and expertise in the country's economy especially in the banking and service sectors. Perhaps a more obvious evidence of imitation and modeling is in respect of the corporate governance reforms and code. South Africa has one of the enviable corporate governance reforms and the King I & II are one of the most popular reports on corporate governance. It is therefore not surprising that Swaziland adopted the King II report as the official corporate governance code. This shows the mimetic influence that gradually leads to homogeneity social actors' strategy, structure and outcomes.

Furthermore, according to Di Maggio and Powell (1983), sharing common resource base could facilitate mimetic pressure. For example, common training provider or consultancy could lead to knowledge transfer with which the focal organization may reduce their perceived legitimacy gaps. As mentioned earlier, the SADC through its organs and institutions facilitates cooperation and coordination among member states on various issues including corporate governance, which could eventually lead to common features and outcomes amongst member states.

The External Normative Drivers for Corporate Governance Disclosure in Swaziland

The normative pressure for corporate governance disclosure in the country appears to emerge from the greater global awareness on corporate governance and due to the country's professional affiliation with international and regional accounting professional organizations.

CONCLUSIONS

The paper aims to investigate the external factors for corporate governance disclosure in a country with poor economic performance. Consequently, this study considered corporate governance disclosure drivers in a unique market setting characterized with poor market infrastructure and poor economic growth. The study finds that drivers for corporate governance disclosure practices in a less developing country (e.g. Swaziland) are mainly derived from external institutional framework because of less pressure from internal arrangements. Further the fewer developing countries would have to implement economic reforms and conform to required level of governance transparency and accountability in order to qualify loan and other

social and economical supports from external sources since the capital markets and markets for corporate control are virtually non-existent in the less developing countries.

The study shows the importance of considering a mid-range theoretical paradigm for the discourse of corporate governance. This is more so the case when due consideration is paid to the institutional context that determines governance mechanisms especially in jurisdictions with severe structural and infrastructural imbalance. This is important in order to understand firms' disclosure behaviours in a country where the markets function poorly. Thus, the study raises the need for extensive research to be carried out to develop corporate governance and disclosure practices in a less developed marked economy.

REFERENCES

- Abor, J., & Adjasi, C.K.D. (2007). Corporate governance and the small and medium enterprises sector: theory and implications. *Corporate Governance*, 7(2), 111-122.
- African Development Bank (ADB) (2005). Kingdom of Swaziland – Country Governance Profile. Operations Department, ONCB, ADB.
- Akhtaruddin, M. (2005). Corporate mandatory disclosure practices in Bangladesh. *The International Journal of Accounting*, 40(4), 399-422.
- Ashworth, R., Boyne, G., & Delbridge, R. (2007). Escape from the Iron Cage? Organizational Change and Isomorphic Pressures in the Public Sector. *Journal of Public Administration Research and Theory*. (Advanced Accessed: 1st published on line 21st December, 2007).
- Bhasa, M. P. (2004). Global corporate governance: debates and challenges. *Corporate Governance*, 4(2), 5-17.
- Bhasin, M. L., & Reddy, M. (2011). Corporate Governance Disclosure Practices: The Portrait of a Developing Country. *International Review of Business Research Papers*, 7(1), 393 – 419.
- Cadbury, Sir Adrian (1992). Report of the Committee on the Financial Aspects of Corporate Governance. Gee & Co. Ltd., London.
- Central Bank of Swaziland (CBS) (2010/2011). Annual Report, CBS, Mbabane.
- Companies Act 2009 (2009). The Companies Act Notice 2009, Swaziland Government Gazette, Vol. XLV, Mbabane, December 25, 2009.
- DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields”, *American Sociological Review*, 48(2), 146-160.
- Dlamini, M. P. (2005). Public Enterprises and the Challenges of Privatization in Swaziland. *African Journal of Public Administration and Management*, XVI(2), 29-49.
- Dreher, A. (2006). Does Globalization Affect Growth? Evidence from a new Index of Globalization. *Applied Economics*, 38(10), 1091-1110.
- Frank, D.J., Hironaka, A., & Schofer, E. (2000). The Nation-State and the Natural Environment over the Twentieth Century. *American Sociological Review*, 65(1), 96-116.
- Guler, I., Guillén, M. F., & Macpherson, J. M. (2002). Global competition, institutions, and the diffusion of organizational practices: The international spread of ISO 9000 quality certificates. *Administrative Science Quarterly*, 47(2), 207–232.
- Hambrick, D. C., Finkelstein, S., Cho, T. S., & Jackson, E. M. (2005). Isomorphism in reverse: Institutional theory as an explanation for recent increases in intraindustry heterogeneity and managerial discretion. *Research in Organizational Behavior*, 26, 307-350.

Hendrikse, J. W., & Hendrikse, L. (2004). Introduction to Capitalism and Corporations”, in Hendrikse, J. W. and Hendrikse, L. (Eds.), *Business Governance Handbook: Principles and Practice*. Juta & Co. Ltd, Cape Town.

Hillman, A.J., Withers, M.C., & Collins, B.J. (2009). Resource Dependence Theory: A Review. *Journal of Management*, 35(6), 1404–1427.

Hong Kong Society of Accountants (2001). Corporate Governance Disclosure in Annual Reports: A Guide to Current Requirements and Recommendations for Enhancement. Hong Kong Society of Accountants, Hong Kong, March 2001.

King II (2002). King Report on Corporate Governance for South Africa 2002. Institute of Directors in South Africa, Parklands, South Africa. Available at <http://www.iodsa.co.za>.

Naidoo, R. (2002). Introduction to Corporate Governance, in Naidoo, R. (Ed.), *Corporate Governance – An Essential Guide for South Africa Companies*. Double Storey Books, Cape Town.

Organization for Economic Co-operation and Development (OECD) (2004a). Principles of Corporate Governance. Available at <http://www.oecd.org/daf/corporate/principles..2005/12/25>.

Organization for Economic Co-operation and Development (OECD) (2004b). Improving Business Behaviour: Why we need corporate governance. Available at <http://www.oecd.org/document/37/0,3343,en...html> 2007/11/19.

Pfeffer, J., & Salancik, G. (1978). The External Control of Organizations: A Resource Dependence Perspective. Harper and Row, New York.

Shleifer, A., & Vishny, R. W. (1997). A Survey of Corporate Governance. *The Journal of Finance*, 52(2), 737-781.

Spanos, L.J. (2005). Corporate governance in Greece: developments and policy implications. *Corporate Governance*, 5(1), 15-30.

Taylor, L. (1997). The Revival of the Liberal Creed - the IMF and the World Bank in a Globalized Economy. *World Development*, 25(2), 145-152.

World Bank Development Indicator (2011), Swaziland – Country Brief. Available at: <http://data.worldbank.org/data-catalog/world-development-indicators/wdi-2011>. (Accessed on 20th April, 2012).

[Www.sacu.org](http://www.sacu.org), Southern African Customs Union, South Africa.

[Www.ssx.org.sz](http://www.ssx.org.sz). Swaziland Stock Exchange Listing Requirements. Swaziland Stock Exchange, Mbabane, Swaziland.

HIGH INVOLVEMENT VS LOW INVOLVEMENT: RISK PERCEPTION FOR DIFFERENT BRAND IMAGE LEVELS

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ABSTRACT

The main objective of this study is to determine the risk perception of consumers for different brand image levels in the cases of high and low involvement. The data is collected from 600 consumers via face-to-face questionnaire, and cluster analysis and discriminant analysis are used to test the research hypothesis. As a result, it was found that the high and low involved consumers do discriminate on the basis of their risk perception for a high image brand. However, risk perception is not a discriminator between them in the case of low brand image.

INTRODUCTION

Product involvement is generally understood as referring to the “personal relevance of the object based on inherent needs, values and interests” (Zaichkowsky, 1985). In a high involvement condition, individuals are supposed to dedicate more attention and effort to a specific decision problem, product category, or brand (Xue, 2008). Involvement theory can be used to construct profiles of products and buyers, therefore it can be used as a segmentation tool, and can assist marketing management with marketing mix decisions. In explaining consumer decisions, perceived risk is another commonly used concept. First, it is a powerful concept that explains consumer decision making, since consumers are more often motivated to avoid mistakes than to maximize utility in purchasing (Mitchell, 1999). Second, it stimulates information search and risk-handling behavior of consumers (Dowling, 1986). Third, consumers are risk averse and select brands on the basis of minimizing expected loss (Peter and Ryan, 1976). Perceived risk theory argues that consumers are keen to minimize their perceived risk rather than to maximize their utility (Mitchell, 1999). Brand image has been an important concept in consumer behavior research since the early 1950s. Brand image is the concept of a brand that is held by the consumer. It is “largely a subjective and perceptual phenomenon that is formed through consumer interpretation, whether reasoned or emotional” (Dobni and Zinkhan, 1990, p. 118). Consumers organize a cluster of attributes and create an image association related to the brand around both functional and symbolic dimensions (Park et al., 1986). This study aims to determine whether high and low involved consumers do discriminate regarding their risk perception for two different brand image levels- high and low image.

THEORETICAL FRAMEWORK

Perceived risk

The concept of perceived risk was first defined by Bauer (1967, p. 24), in that “consumer behavior involves risk in the sense that any action of a consumer will produce consequences that he/she cannot anticipate with anything approaching certainty, some of which are likely to be unpleasant.” Cunningham (1967, p. 37) conceptualized perceived risk in terms of two similar components, “the amount that would be lost (i.e., that which is at stake) if the consequences of an act were not favorable, and the individual’s subjective feeling of certainty that the consequences will be unfavorable.” Perceived risk was conceptualized as an “expectation of loss”. The more one is certain about this expectation, the greater the risk for the individual (Stone and Winter, 1987). In the present study, perceived risk is defined as the consumer’s subjective expectations of loss for each of the possible choice alternatives for a given decision goal (adapted from Aqueveque, 2006).

The perceived risk construct has been conceptualized and operationalized at different levels of abstraction- low, medium and high. Low level of abstraction focus on the attributes of a single product, medium level of abstraction focus on perceived risk at the product category level or across various product categories, and high level abstraction resemble a personality trait by using of the terms "risk seeker" and "risk avoider". Since fewer other variables will intervene between risk and behavior, perceived risk at a low level of abstraction is stated as a more powerful predictor of consumer behavior (Dowling, 1986). Perceived risk was determined as a multi-dimensional concept including six dimensions (Roselius, 1971; Jacoby and Kaplan, 1972; Stone and Gronhaug, 1993; Mitchell and Kiral, 1999): **(1) Social risk** is the perception that the brand/product chosen may affect others' thoughts. It results from the thought that friends or family might think that the purchase made is a poor choice. It is the belief of consumers that their peers may evaluate them negatively due to a purchase they make (Aqueveque, 2006). **(2) Psychological risk** is the perception that the brand/product chosen might not fit well with the buyer's self-image or self-concept. It is the chances of the specific purchase being inconsistent with the personal or self-image of the consumer. (Pires et al., 2004). It is a potential loss of self-esteem (or ego loss) from frustration at not achieving a buying goal. **(3) Physical risk** is the perception that the brand/product chosen might not be safe or might be harmful or injurious to health. **(4) Performance risk** is the perception that the brand/product chosen might not perform well or work properly. It is conceptualized as the loss incurred when a brand or product does not perform as expected (Horton, 1976). **(5) Financial risk** refers to the perception of the likelihood that the product is not worth the price paid (Tsiros and Heilman, 2005). It is the perception that the brand/product chosen might cause a money loss either because it will not work at all or because it costs more than it should to keep it in good shape. The financial risk arises when consumers perceived the product is less likely to fulfil the value-for-money expectations (Bettman and Park, 1980). **(6) Time risk** is the perception that the brand/product might cause time loss while adjusting, repairing, and replacing it. In that scope, it was stated that time risk reduces the functional and monetary value because of the malfunction and, negatively influences the emotional and social value because of the damaged feelings and social self-concept. Perceived risk has been identified as a dominant influence in the early stages of the buying process. Generally, as consumers recognize a need for a certain product or service, they simultaneously perceive risk. Once a purchase decision has been made and a product has been consumed or experienced, consumers are faced with the consequences of their purchase (Mitchell and Boustani, 1994).

Product Involvement

Involvement has been a key concept in consumer research for almost over two decades (Charters and Pettigrew, 2006). It is defined as the perceived relevance of the product category to the individual- for example, an individual may be very involved with a product category (e.g. cars) or a brand (e.g. Volvo) (Quester and Lim, 2003). In this present study, involvement conceptualized as the degree of psychological identification and affective, emotional ties the consumer has with a product category. Studies have shown that product involvement can influence the decision-making process, information search about the product, the timing in product adoption, the attitudes and preferences regarding the product, the perceptions of alternatives and brand loyalty (Bauer et al., 2006; Brisoux and Cheron, 1990; Charters and Pettigrew, 2006; Lin and Chen, 2006). Product involvement is an enduring situation, and goes beyond mere utilitarian "importance", having both experiential and symbolic significance (Charters and Pettigrew, 2006). Zaichkowsky (1985) examined the level of product involvement for product categories and found that there is a significant difference in product involvement level for various products. For example, consumers have a low level of product involvement was found for instant coffee, bubble bath soap, and breakfast cereal, a medium level of product involvement was found for, facial cream, mouthwash, headache remedies, and tissues, and a high level of product involvement was found for calculators and automobiles. Kapferer and Laurent (1986) also concluded that there is a variance in product involvement for different products.

Brand image

Consumers learn about the brand through their experiences. The resulting brand associations are held in consumer's memory and constitute the brand image (Torres and Bijmolt, 2009). To built blocks of customer-based brand equity brand associations are important (Keller, 1993, 2003). Brand image is generally defined as consumers' perceptions of a brand. Saaksjarvi and Samiee (2011) conceptualized brand image as pertaining to brand credibility, brand character, consumers' overall attitude towards the brand, and consumers' feelings for the brand. Brand image is an extrinsic cue as a reference for evaluating alternatives and reducing risks (Simonian et al. 2012). When consumers perceive that the brand image is getting better,

they have a lower perceived risk (Cox, 1962; Kotler and Keller, 2008; Roselius, 1971). Therefore, brands can improve their image to reduce the perceived risk (Dowling and Staelin, 1994). This study aims to determine whether high and low involved consumers do discriminate regarding their risk perception for two different brand image levels- high and low image. The constructs of perceived risk and product involvement have been extensively used as moderating or explanatory variables in consumer behavior (Dholakia, 1997). The objective of this study is to explore whether high and low involved consumers perceive different kinds of risks, and if so, is this discrimination valid for different levels of brand image- high and low image. Therefore the hypothesis of the study were formulated as:

H1: Consumers can be clustered as high and low involved regarding their interest to a product class.

H2: High and low involved consumers do discriminate regarding their risk perception for high/low image brands.

RESEARCH METHODOLOGY

Perceived risk is a multidimensional concept and the dimensions of perceived risk differ by product class. Consumers evaluate products on some basic features that differ for the product class, and each of these features is a potential risk source (Zikmund and Scott, 1973). In this study, in order to comprehend all the perceived risk dimensions, the automobile product class is studied. Because two different brand image level is investigated two car brands were chosen. Since the manufacturer required privacy, the brand names are not mentioned in the study but are named as High image Brand- HiB and -Low image Brand- LiB.

Sampling and data collection

The sampling frame of the study is determined as “consumers owning cars other than HiB and LiB”; that is, the car owners of HiB and LiB were excluded from the research. This is because including the owners of these brands could create a sampling error (Dowling, 1986). The owners of these brands have already evaluated the risks relating to the brands and have made their purchase decision. Therefore, they would have subjective judgments associated with the risk and value perceptions of these brands. Besides, pre-purchase and post-purchase risk perceptions differ (Mitchell and Boustani, 1994). The data is collected from 600 consumers via face-to-face questionnaire. To measure brand image, the brand image scales developed by Lee and Ganesh (1999) and Hsieh (2001) were used; to measure perceived risk, the scales developed by Stone and Gronhaug (1993) was used; and to measure product involvement, the scales developed by Bauer, et al., (2006), Lastovicka and Gardner (1979), and Bloch (1981) were used.

RESEARCH FINDINGS

Reliability and Validity of the Scales: Cronbach’s Alpha coefficient was used to test the reliability and exploratory factor analysis to test the validity of the scales. The reliability and validity analysis were executed for the two brands separately. As seen in Table 1, the Cronbach’s Alpha coefficients are above the minimum required level of 0,70 and the explained variance is high.

Table 1: Summary Results of the Reliability and Validity Tests of the Scales

	Number of Variables	Total Explained Variance (%)
HiB Brand Image	8	80,705
LiB Brand Image	8	68,014
Product Involvement	7	70,126
Perceived Risk for HiB	17	80,475
Perceived Risk for LiB	18	87,039

Manipulation Check: The brand image perceptions of HiB and LiB was tested by t-test to identify whether they had perceived high and low brand images as pre-specified. As can be seen in Table 2, the brand images of HiB and LiB are different, with HiB having a high image and LiB a low image.

Table 2: Manipulation Check (Paired Samples t-test)

	Mean (HiB)	Mean (LiB)	t-value	df	sig.
...cheap	4,37	3,07	25,583	599	,000
...latest technology	4,42	2,77	32,680	599	,000
...luxury features	4,4	2,72	32,848	599	,000
...prestigious	4,36	2,65	32,727	599	,000
...exciting	4,44	2,93	30,277	599	,000
...fun to drive	4,39	2,86	29,121	599	,000
...made to last	4,38	2,8	29,407	599	,000
...high quality	4,46	2,65	34,122	599	,000

Hypothesis test: In the study, cluster analysis and discriminant analysis was used to test the research hypothesis.

In the study, in order to classify consumers as high and low involved regarding their interest to the automobile class, cluster analysis was used. In order to determine the number of clusters, the results for 2, and 3 cluster solutions were examined by comparing the ANOVA results. Besides the homogeneity within the clusters, the number of cases in each cluster and the distances between the cluster centers were evaluated (Hair et al., 1998, Sharma, 1996). According to the evaluations, two-cluster solution as high and low involved consumers was agreed upon.

As a result of the cluster analysis, H1 is supported- consumers can be clustered as high and low involved regarding their interest to cars. In order to test the second hypotheses, discriminant analysis was used. Discriminant analysis is a useful technique in the examination of whether significant differences exist among in terms of predictor variable (Malhotra, 2004). In order to test the multivariate aspects of the model first of all, canonical discriminant function is checked and found as 0,338. The significance of the discriminant function was tested by Wilks' Lambda. As can be seen in Table 3, the discriminant function is statistically significant.

Table 3: Wilk's Lambda of the Discriminant Function

Function	Wilk's Lambda			
	Wilk's Lambda	Chi-square	df	sig.
1	0,886	70,326	36	0,001

In the discriminant analysis, Wilks' Lambda and univariate ANOVA were used to assess the significance between the means of independent variables for the two groups (Hair, et al., 1998). These tests highlighted that, high and low involved consumers do discriminate regarding their risk perception for the high image brand. However, there is no discrimination regarding their risk perception for the low image brand. Therefore, H2 was partially supported. In interpreting the results of the discriminant analysis, the interpretation is done on the discriminant loadings since they are more valid than weights. Generally, variables loading 0,30 or higher are considered substantive (Hair, et al.,1998). The structure matrix (given in Table 6) shows the discriminant loadings that represent the simple correlation between the predictors and the discriminant function. Besides, for high image brand, all of the perceived risk dimensions have higher loadings and can be used to discriminate high and low involved consumers. In Table 7, the mean and standard deviation of the discriminating variables of high and low consumers are given. As seen from Table 7, high involved consumers perceive less risk for the high image brand than low involved consumers. In the study, the correct classification ratio of discriminant function was found quite high (80,5 %).

CONCLUSION

This study aims to identify the distinction between high and low involved consumers in terms of risk perception on different brand image levels. The data is collected from 600 consumers via face-to-face questionnaire. As subject to the study, automobile was chosen. As a result of cluster analysis, it was found that consumer can be classified into two groups- high involved consumer and low involved consumers. Then, discriminant analysis was run to explore the discriminating perceived risk variables between these

consumer groups. It was found that, high and low involved consumers do discriminate on their risk perception for high image brands, while they do perceived the same risks for the low image brand. For the high image brand, high involved consumers perceive less risk than the low involved consumers. However, the perceived risks for the low image brand are not different for high and low involved consumers.

Involvement is defined as “the general level of interest in the object, or the centrality of the object to the person’s ego-structure” (Day, 1970 p. 45; Bowen and Chaffee, 1974). Howard and Sheth (1969) equated involvement with importance. It is a relation between consumer and product” Similarly, Bloch (1982) defined product involvement as a unique relationship between consumer and product: “an unobservable state reflecting the amount of interest, arousal or emotional attachment evoked by the product in a particular individual” (p. 413).

High involved consumers spend more time and effort and indulge in extensive information search. Zaichowsky (1985) suggests that involvement affects consumers’ cognitive (i.e. information search, processing, attention, satisfaction) and behavioral (i.e. early adoption) responses. Therefore, it is not surprising to find that high involved consumers perceive less risk brand compared to low involved consumers. However, this study highlighted that, in the case of risk perception the discrimination of high and low involved consumers is affected by brand image. For the high image brand, high and low involved consumers do discriminate, but for the low image brand their risk perception is not a different.

This study investigated the research hypothesis on one product class- cars. That is the main limitation of the study. And also, the discrimination of the high and low involved consumers was searched on the basis of their risk perception. As a further research, studying other product classes should be beneficial. Furthermore, besides perceived risk, other variables discriminating high and low involved consumers should be explored.

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REFERENCES

- Aqueveque, C. (2006) Extrinsic cues and perceived risk: the influence of consumption situation, *Journal of Consumer Marketing*, 23, 237-247
- Bauer, H.H., Sauer, N.E. & Becker, C. (2006), Investigating the relationship between product-involvement and consumer decision-making style, *Journal of Consumer Behavior*, 5, 342-54.
- Bauer, R.A. (1967), Consumer Behavior and Risk Taking in *Risk Taking and Information Handling in Consumer Behavior*, Donald F. Cox, Harvard University Press, USA.
- Bettman, J.R.& Park, C.W. (1980), Effects of Prior Knowledge and Experience and Phase of the Choice Process on Consumer Decision Processes: A Protocol Analysis, *Journal of Consumer Research*, 7, 234-248
- Bloch, P.H. (1981), An Exploration into the Scaling of Consumers' Involvement with a Product Class, *Advances in Consumer Research*, 8, 61-65.
- Brisoux, J. & Cheron, E. (1990), Brand categorization and product-involvement, *Advances in Consumer Research*, 17, 101- 109.
- Charters, S. & Pettigrew, S. (2006), Product-involvement and the evaluation of wine quality, *Qualitative Market Research*, 9, 181-94.
- Cox, D.F. (1967), Risk Handling in Consumer Behavior- An Intensive Study of Two Cases, in *Risk Taking and Information Handling in Consumer Behavior*, Donald F. Cox, Harvard University Press, USA.
- Cunningham, S.M. (1967) The Major Dimensions of Perceived Risk in *Risk Taking and Information Handling in Consumer Behavior*, Donald F. Cox, Harvard University Press, USA.

- Dholakia, U.M. (1997) An Investigation of the Relationship Between Perceived Risk and Product Involvement, *Advances in Consumer Research*, 24, 159-167.
- Dobni, D. & Zinkhan, G.M. (1990) In Search of Brand Image: a Foundation Analysis, *Advances in Consumer Research*, 17, 110-119.
- Dowling, G.R. & Staelin, R. (1994) A Model of Perceived Risk and Intended Risk-Handling Activity, *Journal of Consumer Research*, 21, 119-134
- Dowling, G.R. (1986) Perceived Risk: The Concept and Its Measurement, *Psychology and Marketing*, 3, 193-210
- Hair, J., Anderson, R., Tatham, R. & Black, W. (1998), *Multivariate Data Analysis*, 5th edition, USA: Prentice- Hall International, Inc
- Horton, R.L. (1976) The Structure of Perceived Risk: Some Further Progress, *Academy of Marketing Science*, 4, 694-706
- Hsieh, M. H., (2002) Identifying Brand Image Dimensionality and Measuring The Degree of Brand Globalization: A Cross- National Study, *Journal of International Marketing*, 10, 46-67.
- Hughes, D., Hutchins, R. & Karathanassi, V. (1998) Purchase involvement methodology and product profiles: the case of cheese products in Greece, *British Food Journal*, 100, 343-350
- Jacoby, J.& Kaplan, L.B. (1972) The Components of Perceived Risk, *Proceedings of The Third Annual Conference of The Association for Consumer Research*, 382-393
- Kapferer, J. & Laurent, G. (1986), "Consumer involvement profiles: a new practical approach to consumer involvement", *Journal of Advertising Research*, Vol. 25 No.6, pp.48-57.
- Keller, K.L., (1998) *Strategic Brand Management Building, Measuring and Managing Brand Equity*, Prentice Hall Inc., USA
- Keller, K.L., (2003) Brand Synthesis: The Multidimensionality of Brand Knowledge, *Journal of Consumer Research* , 29, 595-600
- Kotler, P. & Keller, K.L. (2008) *Marketing Management*, Pearson International Education, USA.
- Lastovicka, J.L. & Gardner, D.M. (1979) Components of Involvement, Attitude Research Plays for High Stakes, 53-73.
- Lee, D. & Ganesh, G. (1999) Effects of Partitioned Country Image in the Context of Brand Image and Familiarity: A Categorization Theory Perspective, *International Marketing Review*, 16, 18-39
- Lin, L. & Chen, C. (2006) The influence of the country-of-origin image, product knowledge and product-involvement on consumer purchase decisions: an empirical study of insurance and catering services in Taiwan, *Journal of Consumer Marketing*, 23, 248-265.
- Mitchell, V.W. & Boustani, P. (1992) Market Development Using New Products and New Customers: A Role for Perceived Risk, *European Journal of Marketing*, 27, 17- 32
- Mitchell, V.W. & Kiral, H.R. (1999) Risk Positioning of UK Grocery Multiple Retailers", *The International Review of Retail, Distribution and Consumer Research*, 9, 17- 39
- Mitchell, V.W. (1999) Consumer Perceived Risk: Conceptualisations and Models", *European Journal of Marketing*, 33, 163-195
- Park, W.C., Jaworski, B.J. & MacInnis, D.J., (1986) Strategic Brand Concept- Image Management, *Journal of Marketing*, 50, 135-145

- Peter, P.J. & Ryan, M.J. (1976) An Investigation of Perceived Risk at The Brand Level, *Journal of Marketing Research*, 13, 184-188.
- Pires, G., Stanton, J. & Eckford, A. (2004) Influences on The Perceived Risk of Purchasing Online, *Journal of Consumer Behaviour*, 4, 118-131
- Quester, P. & Lim, A.L. (2003) Product involvement/brand loyalty: is there a link?, *Journal of Product & Brand Management*, 12, 22-38
- Roselius, T (1971) Consumer Rankings of Risk Reduction Methods, *Journal of Marketing*, 35, 56-61
- Saaksjarvi, M. & Samiee, S., (2011), Relationships among Brand Identity, Brand Image and Brand Preference: Differences between Cyber and Extension Retail Brands over Time, *Journal of Interactive Marketing*, 25, 169-177
- Sharma, S., (1996) *Applied Multivariate Techniques*, John Wiley & Sons Inc., USA.
- Shocker, A.D. & Srinivasan, V. (1979) Multiattribute Approaches for Product Concept Evaluation and Generation: A Critical Review, *Journal of Marketing Research* , 16, 159-180
- Simonian. M.A., Forsythe, S., Kwon, W.S. & Chattaraman, V. (2012) The role of product brand image and online store image on perceived risks and online purchase intentions for apparel, *Journal of Retailing and Consumer Services*, 19, 325-331.
- Snoj, B., Pisman, A. & Mumel, D. (2004) The Relationships Among Perceived Quality, Perceived Risk and Perceived Product Value, *Journal of Product and Brand Management*, 13, 156-167.
- Stone, R.N. & Gronhaug, K. (1993) Perceived Risk: Further Considerations for The Marketing Discipline, *European Journal of Marketing*, 27, 39-50.
- Stone, R.N. & Winter, F.W., 1987, Risk: is it still uncertainty times consequences?, *Proceedings of the American Marketing Association*, 261–265
- Torres, A. & Bijmolt, T.H.A. (2009) Assessing brand image through communalities and asymmetries in brand-to-attribute and attribute-to-brand associations, *European Journal of Operational Research*, 195, 628–640
- Tsiros, M. & Heilman, C.M. (2005) The Effect of Expiration Dates and Perceived Risk on Purchasing Behavior in Grocery Store Perishable Categories, *Journal of Marketing*, 69, 114-129.
- Xue F., (2008) The moderating effects of product involvement on situational brand choice, *Journal of Consumer Marketing*, 25, 85-94
- Zaichkowsky, J.L. (1985) Familiarity: product use, involvement, or expertise?, *Advances in Consumer Research*, 12, 296-269.
- Zikmund, W.G. & Scott, J.E. (1973) A Multivariate Analysis of Perceived Risk Self-Confidence and Information Sources, *Advances in Consumer Research*, 1, 406-416.

DOES GOVERNMENT OWNERSHIP AND DISCLOSURE AFFECT PERFORMANCE AND STABILITY OF THE GCC BANKING SECTOR?

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ABSTRACT

This paper studies empirically the effect of government ownership and the level of disclosure on the performance and the stability of banks, controlling for regulations, concentration, bank and country specific characteristics. The sample used covers 59 banks in six countries which comprise the Gulf Cooperative Council (GCC), for the period from 2004 to 2010. Two methodologies are implemented: The first is the Generalized Least Square Random Effect (GLS RE) methodology; and the second is the Generalized Method of Moment (GMM) methodology, which controls for the endogeneity and the omitted variable problems that occur in this kind of studies. Contrary to expectations, we find that governmentally owned banks are more stable than their counterparts. However, there is very limited evidence on the negative relationship between government ownership and bank performance.. The level of disclosure negatively affect bank performance, indicating that investors may not view information disclosed by the bank as reliable or may not be able to interpret correctly the information disclosed. Therefore, this might have reduced the positive effect of disclosure on stability and bank valuation. Finally, the impact of bank regulations on bank risk taking is negligible.

INTRODUCTION

In this paper we analyze the performance and the risk taking by banks, their level of disclosure, government ownership, concentration, and national bank regulations. The paper measures whether bank performance and risk taking varies with the level of disclosure, and government ownership structure of each bank. In addition, we examine whether the bank risk and performance is affected by national regulations, and banking concentration. This research utilizes data from the Gulf Cooperative Council (GCC) banks during the 1998-2010 period, which includes the financial crisis of 2006-2008. The six GCC countries include the Kingdom of Saudi Arabia (KSA), United Arab Emirates (U.A.E.), Kuwait (K), Bahrain (B), Qatar (Q) and Oman (O).

Governments and quasi government agencies like pension funds and sovereign funds in the GCC countries own a substantial amount of securities in the banking sector. The amount of government ownership in the GCC ranges from 13 percent in Kuwait to around 52 percent in the UAE. If substantial amount of securities are owned by the government, we would expect that managers, working as agents of the government, have incentives to take higher risks than firms with diverse ownership. A high governmental ownership in the banking sector subjects banks to a potential conflict that exists given the government's role as a regulator and its responsibility for the supervision of the financial markets. In addition, political authorities might try to interfere in the bank's day-to-day business for political purposes. Bank ownership, according to the political theories, enables the government to finance the inefficient projects which would not get private financing just because they tend to be politically desirable projects. If the bank with substantial government ownership fails, it will be embarrassing for the government to admit, and consequently might interfere to bail out such a bank. This implicit insurance gives incentives for managers of banks with a high government ownership to take excessive risks. Therefore, we expect that the higher the government ownership the higher the risk taking by banks.

In addition, the actual risk-taking, as well as, risk management process in banks is not clearly apparent, disclosure by banks about their financial position and risk profile that constrains management to follow an optimal risk management process might reveal its quality and hence, might help market participants in their pursuit in firm valuation. Disclosure encourages bank managers to keep firm practices. When banks disclose information about their financial condition and their risk profile to the public, market participants would be able to assess the financial position of the bank and to compare the positions of different banks. Increased information through disclosure, however, does not necessarily reflect higher

transparency. Transparency involves placing that information into meaningful contexts (Greenspan 2003). This is particularly relevant to banks because they have high risk exposures and complex operations. Market participants, however, may not view information disclosed by the bank as reliable or may not be able to interpret correctly the information disclosed. Therefore, these arguments might reduce the positive effect of disclosure on bank risk taking and its valuation.

This research contributes to the literature in many ways. First, we consider the concentrated ownership by governments rather than the ownership by management since the ownership by management is not revealed by most of the banks, and because shareholders with large percentage of ownership can affect the financial decisions by managers. Second, given the importance of transparency, we introduced an index which reflects bank transparency reflected in the level of bank disclosure. Third, we introduce an index for bank regulations. Finally, we look at the simultaneous measurement of performance and risk in the banking sector in the rich oil producing countries.

Two methodologies are implemented: The first is the Generalized Least Square random effect (GLS RE) method; and the second is the Generalized Method of Moment (GMM) to test our hypotheses. This methodology controls for the endogeneity and the omitted variable problems that occur in the ownership-performance analysis (Coles et al. 2006, 2007). The results of the research might help policy makers to adopt decisions concerning rules regarding bank ownership, like for example, to limit government ownership concentration, increase privatization program, provide better disclosure guidelines and/or opening the market for more foreign and domestic ownership in order to increase the level of bank competitiveness.

In the next section we discuss our data, hypotheses, statistical methods. In section 4 we outline our empirical results. Section 4 provides conclusions.

DATA AND METHODOLOGY

Data And Variable Definition

Our database is set to examine whether government ownership, the level of regulation and bank disclosure affect bank risk and performance. We collect information on all banks listed in the stock exchanges of six GCC markets. The Banks in the study satisfy the requirement of complete data over the period 2004 and 2010. The sample comprises 59 banks. The number of banks per country varies from twelve to six. This research uses income statement and balance sheet data collected from Gulf Base database and the annual reports of the banks under investigation. The bank ownership information is collected manually from individual bank's financial statements. All banks comply with international accounting standards to control for differences in accounting standards that might drive our results. The data on regulation is collected manually from different governmental agencies mainly the Central banks of respective countries and an index is calculated by the researcher. In addition, data on disclosure index is collected manually from the annual reports of banks. We classify a bank to have a large ownership if the shareholder voting rights that sum to 10% or more. If no shareholder holds 10% of the voting rights, the bank is classified as widely held (Caprio, Laeven, and Levine (2007)). Additional information at country level is collected from country, World Bank, World Development Indicators.

Dependent Variables

First, bank risk (Stability) (LnZ): This paper uses the Z-score developed by Boyd and Graham (1986, 1988) as a proxy for probability of insolvency. Second, *bank performance measures:* We choose two measures of performance, ROA, ROE which are most commonly used in the literature (Claessens, et al. 2000, Lin and Zhang, 2009). The ROA is calculated as net income to total assets, while the return on equity is equal to net income to shareholders equity for each bank and each year.

Independent variables

Government ownership (G.O): Controlling ownership by of the GCC banks are dominated by different groups of owners, mainly government and government agencies. The banking sector in the GCC in general is domestically owned reflecting restrictions on foreign ownership (For example, Kuwait and Qatar restricts foreign ownership to 49 percent, while Saudi Arabia and UAE restrict it to 40 percent).The share of

government and quasi-government ownership in the banking sector in the GCC is substantial. It represents around 50 percent in U.A.E (including both government, quasi-government (41%), and ruling family (10%) ownerships), 35 percent in Saudi Arabia, and 13 percent in Kuwait. In the GCC markets, the relationship and the links between bankers, politicians and state ownership of banks is significant. According to the literature this allows for a great deal of political influence in credit markets (e.g., Brown and Dinc (2005), Dinc (2005), and La Porta, Lopez-de-Silanes, and Shleifer (2002)). This paper expects risk to increase with the level of concentrated ownership.

Control Mechanisms: Two control mechanisms are supposed to reduce the agency problem and align the interest of managers with those of the shareholders. The first one is internal and includes managerial incentive plans, monitoring by the board of directors. The second one is external such as debt holders, the market for corporate control, the product market competition, the managerial labor market and the regulatory system. Two of the external corporate governance systems will be utilized in this study one is the amount of disclosure and the other is bank regulations. *The Amount of disclosure (Discl)* reflects the level of transparency. The substitute model suggests that with good information disclosure, outside shareholders will be better able to monitor the action of managers. To measure the change in information asymmetry, we include an indicator of information quality in the annual report of corporations (i. e. transparency). Transparency is measured by an index, published by the researcher. It includes the reporting of six dimensions in the financial report for the banks in the sample during the study period (Head of BOD speech, Financial reports data, Audited financial statements, BOD assessment endorsement, Timing and accessibility of information, Auditing and Independency).

Bank Regulations in the GCC (Regulat.): The main justification for bank regulation is usually the reduction of systemic risk that can lead to financial crises, or to protect the depositors by providing the deposit insurance guarantee. More stringent regulations, however, might not be effective in reducing the potential of a crisis since managers find always ways through which they introduce new inventions to get around these regulations. It is vital to consider the restrictions on the type of activities provided by banks and the regulations imposed on this sector. The type and the amount of regulations on banks determine the degree of freedom given to the banking sector and addresses the government ownership of banks and foreign bank ownership, hence the degree of competition in the banking sector. Shareholders protection laws and banking regulations are expected to substitute for the existence of a large shareholder to monitor managers. In this paper we concentrate on the important components of bank regulation: the extent of activities that are permitted, and the restrictions on entry into the market. The author formulate an index which measures regulatory impediments to banks reflecting the rules and regulations on the banking sector in each country. The index reflects the nature of the banking industry which impacts the performance and risk taking of these banks. *Bank concentration (Con.)* is defined as the ratio of deposits held by the three largest banks relative to the deposits held by all banks. Market structure and the relevant degree of competition are measured with concentration ratio. *Control variables* : Three control variables will be used which are: *SIZE* - the log of Total Assets (LnTA); *CAPITAL* - the ratio of Book Value of Equity to Total Assets (EQ/TA) and *L/D*: a bank's ratio of total loans to total deposits. (L/D).

Methodology

In this paper we assume that bank risk, and performance is jointly determined. In addition, some of the regressors used in the study are believed to be endogenous, such as loan to deposit and size. This implies that OLS techniques could produce biased coefficient. Since our main variable to be checked like the government ownership and regulations do not vary over time, the fixed effect estimates would be imprecise ((Wooldridge, 2002). Also, the fixed effect estimates may increase the problem of multicollinearity if solved with least squares dummy variables (Baltagi, 2005).

Therefore, two methodologies will be implemented in this study. The first is to estimate our equations using generalized least square (GLS), random effect technique. We also estimate our two equations (1, 2) using Generalized Method of Moments (GMM) for robustness purposes. The GMM system method retains a system of two equations-the original equation and the transformed one. We test the null hypothesis of no autocorrelation in the differenced residuals. It also does not require a distributional assumption on the error term. The validity of the instrumental variables is tested using Hansen test of over-identifying restrictions and as a test of the absence of serial correlation of the residuals. Since our data contains a small number of banks, we implement one-step GMM-in-System estimator. All models include time dummies and they are estimated by GLS RE and GMM

$$\begin{aligned} \text{Ln}(Z)_{k,i,t} = & \alpha + \beta_1(\text{G.O})_{k,i,t} + \beta_2(\text{LnTA})_{k,i,t} + \beta_3(\text{EQ/TA})_{k,i,t} + \beta_4(\text{Discl.})_{k,i,t} + \beta_5(\text{L/D})_{k,i,t} \\ & + \beta_6(\text{Con.})_{k,t} + \beta_7(\text{LnPCGDP})_{k,t} + \beta_8(\text{GGDP})_{k,t} + \beta_9(\text{Regulat.})_{k,t} + \beta_{10}(\text{inf.})_{k,t} + \sum_{t=1}^{2004-2010} \gamma_t + \varepsilon_{it} \end{aligned} \quad (1)$$

$$\begin{aligned} \text{ROA}_{i,k,t} \text{ or } (\text{ROE}_{i,k,t}) = & \alpha + \beta_1(\text{G.O})_{k,i,t} + \beta_2(\text{LnTA})_{k,i,t} + \beta_3(\text{EQ/TA})_{k,i,t} + \beta_4(\text{Discl.})_{k,i,t} + \beta_5(\text{L/D})_{k,i,t} \\ & + \beta_6(\text{Con.})_{k,t} + \beta_7(\text{LnPCGDP})_{k,t} + \beta_8(\text{GGDP})_{k,t} + \beta_9(\text{Regulat.})_{k,t} + \beta_{10}(\text{inf.})_{k,t} + \sum_{t=1}^{2004-2010} \gamma_t + \varepsilon_{it} \end{aligned} \quad (2)$$

Where: *i* denotes individual banks, *k* refers to countries, *t* time period (2004-2010); β refers to the parameters to be estimated; ε is the error term.; Z-score is reflecting the bank risk, since the z-score is highly skewed; we use the natural logarithm of the z-score, which is normally distributed.; ε_{it} is the idiosyncratic error term.

We report two main tests to determine the appropriateness of our dynamic GMM estimations. The first test is the Hansen test of the over identifying restrictions with the null hypothesis that instruments are exogenous. If the null hypothesis is not rejected, the instruments are valid. A further test is the Arellano-Bond tests for autocorrelation of the errors, with as a null hypothesis of no autocorrelation in differenced residuals. Specifically, the second-order test in first differences tests for autocorrelation in levels.

EMPIRICAL RESULTS

The descriptive statistics for our performance measures, risk measure (Z value), bank characteristics variables, and macroeconomic variables are presented in Table 1. The government ownership variable shows a mean of .16. The mean of the ROA is .02, with a minimum of -.44 and a maximum of .26

Table 1. Descriptive Statistics (Panel of 59 banks of 6 countries, for the 2004-2010 periods)

Variable	mean	Standard deviation	Minimum	Maximum
G.O	.1602	.2249	0	.9988
ROA	.02002	.0614	-0.444	.2611
ROE	.1067	.3074	-3.005	.5277
L/D	1.7075	13.47	.0022	274.2
EQ/TA	.79344	.3403	.00034	6.658
LnTA	16.160	2.159	10.05	21.01
lnZ	2.9110	1.146	.05	5.9
Ln(Discl.)	3.2436	.5655	1.946	4.511
Regulat	19.525	3.851	16	28
GGDP	.05754	.0387	-.046	.163
LnPCGDP	10.184	.5276	9.38	11.3
Inf.	.05384	.0409	-.05	.15
RAROA	3.0059	3.215	-2.1	13.52
EQ/TA	.20307	.15806	.01	1

Table 2 presents the results of Generalized Least Square Random Effect (GLS RE) estimates of our equations (1 and 2) to determine the effect of government ownership, disclosure and regulation factors on bank performance and the amount of risk taken by the GCC banks. Table 2 Panel A and B presents the results of the factors that affect bank performance as measured by ROA and ROE respectively. The regression equation for bank performance is well-fitted with an overall R squared of 16% and 20% respectively and with Wald chi-square statistics which is statistically significant. Results show that government ownership is not significantly related to bank performance, while bank disclosure is negatively related to bank performance. This is consistent with 'Disclosure-Fragility' which asserts that disclosure may lead to interpretation of specific information about banks' financial conditions as indicator of widespread problems in the banking system, ((Calomiris and Mason (1997), Gilbert and Vaughan (1998) and Kaufman (1994)). From the table we can see also that concentration of the banking sector is negatively related to performance. This might imply that the less competitive the banking sector, given everything else constant would lead to the reduction on the profitability of the banks. Bank size is shown to be positively and significantly related to bank performance, larger banks have better risk diversification opportunities and thus lower cost of funding than smaller ones (McAllister and McManus (1993)). In addition, larger banks are

expected to benefit from cost efficiency gains. Loan to deposit is negatively related to ROE, while the level of risk taken by the management is positively related to ROE.

Regression is also run on Z-Score as a dependent variable. The regression equation (3) is well-fitted with an overall R square of around 63 percent. Panel C of table 2 shows an evidence that government ownership influence directly Z-Score, which indicate that governmentally owned banks are more stable and less risky than other banks. In addition, the larger the bank and the higher the risk adjusted return on equity the more stable the bank is. Finally the Wald (1943) test statistic (P) for the joint significance of time dummies is statistically significant at 1% level and hence validates their inclusion in the structural model.

We also perform the analysis by using the Generalized Method of Moments (GMM technique) of Blundell and Bond (1998). Table 3 documents the values for Hansen and the serial-correlation tests. Results of Hansen test and that of the serial correlation do not reject our null hypothesis of correct specification model. Both the P-value of Hansen test and AR (2) test of Arellano and Bond are larger than 5% for ROA, ROE and Z-score which support our estimation results.

Table 2 – Regression results (Panel of 59 banks around 6 countries, for the 2004-2010 period)

Dependent variables	GLS Random Effect		
	Panel A ROA	Panel B ROE	Panel C Ln Z
Variables			
Year dummy	Included	Included	Included
G.O	-.01546 (0.106)	.0154 (0.759)	.83968 (0.004)*
L/D	-.00003 (0.611)	-.0004 (0.035)*	.00181 (0.000)*
lnTA	.00506 (0.000)*	.02721 (0.002)*	.06042 (0.014)*
lnz	..00322 (0.144)	.04291 (0.023)*	-
Ln(Discl.)	-.01658 (0.002)*	-.07054 (0.015)*	.03063 (0.559)
Regulat.	.0006 (0.521)	.00738 (0.112)	.02263 (0.241)
GGDP	-.10389 (0.590)	-.36133 (0.554)	-.8714 (0.345)
LnPCGDP	.01886 (0.036)*	.08478 (0.111)	-.0335 (0.724)
Con.	-.0527 (0.052)*	-.2771 (0.019)*	-.4636 (0.051)*
EQ/TA	.04621 (0.233)	.1356 (0.415)	.20632 (0.487)
Inf.	-.0772 (0.578)	-.4975 (0.442)	0.1936 (0.842)
Risk adj ROE			.15243 (0.000)*
Constant	-.1978 (0.028)*	-1.190 (0.120)	1.5003 (0.204)
Number of Banks	59	59	59
P-value of Wald χ^2 statistics	0.0000	0.0000	0.000
Within R2	0.1434	0.1388	0.1768
Between R2	0.3890	0.4940	0.6626
Overall R2	0.1629	0.2016	0.6158
Rho	0	0	

P value in parentheses

Table 3, also, outlines the regression results using the GMM method of the relationship between bank performance and bank risk taking and government ownership structure, disclosure and regulation controlling for bank, and country specific characteristics. Results show a negative and significant relation between government ownership and ROA implies that banks with larger government ownership perform worse than other banks. In addition, the ratio of loan to deposit is shown to be significant and negatively related to performance. This might reflect high loan losses by banks, which might be due to the financial crisis during the 2006-2008 period. In addition, consistent with the literature, bank size and bank stability is significantly related to bank performance. However, and contrary to expectations bank disclosure is negatively related to bank performance.

Regressions are also run on Z-Score as a dependent variable. Table 3 panel C shows a strong and significant evidence that government ownership influence Z-Score positively. This means that risk taking is reduced by banks that are owned by the government. This is consistent with the results of the regression using GLS random effect. In addition, concentration is negatively and significantly related to risk taking, implies that high bank concentration, which reflect the level of competition, lead to more risk taking by banks. Low competition by banks is perceived adversely by investors and consequently more competitive

environments are considered to permit greater stability to the GCC banking systems. Therefore, policy makers should consider the possibility of opening their markets for more foreign banks and other regional banks to boost competition in the market. Finally, the impact of bank regulations on bank risk taking is negligible.

Table 3 – Regression result (Panel with 59 banks around 6 countries, for the 2004-2010 period)

Independent variables	GMM Method		
	Dependent Variables		
	ROA(panel A)	ROE(panel B)	Ln Z(panel C)
Lag -1	.4558 (0.001)*	.7490 (0.004)*	.8326 (0.064)**
Year dummy	included	included	included
EQ/TA	.0896 (0.036)*	.2255 (0.534)	-.4757 (0.190)
G.O	-.0318 (0.076)**	-.1424 (0.658)	2.2345 (0.001)*
L/D	-.0003 (0.051)*	-.0014 (0.012)*	.00060 (0.584)
lnTA	.0048 (0.047)*	.03298 (0.051)*	.06028 (0.174)
lnz	.0133 (0.000)*	.03373 (0.000)*	
Ln(Discl.)	-.0377 (0.023)*	-.1463 (0.036)*	-.1483 (0.372)
Regulat.	-.0634 (0.067)**	.0480 (0.544)	.0236 (0.143)
Con.	-.1203 (0.192)	-.6179 (0.107)	-2.576 (0.001)*
GGDP	.06483 (0.570)	.0507 (0.896)	.5890 (0.550)
LnPCGDP	.02874 (0.208)	.0960 (0.133)	-.0975 (0.445)
Inf.	-.0428 (0.681)	-.2827 (0.534)	-.1473 (0.887)
Risk AdjROE			.2401 (0.000)*
cons	.1699 (0.768)	-.7194 (0.167)	4.4017 (0.006)*
No. of Banks	59	59	59
P-value of Wald χ^2 statistics	0.0000	0.0000	0.000
Arellano and Bond test for AR (2)	-0.15	-0.17	-0.20
P-value of AR(2)	0.963	0.934	0.896
Hansen J-statistics	7.32	4.81	3.25
P-value of Hansen test	0.325	0.651	0.836

CONCLUSIONS

This study investigates whether government ownership, level of regulation and transparency (disclosure) is related to bank risk-taking and performance. We test whether government ownership, with the existence of regulation and transparency would lead to an increase in risk taking by banks as governments might use these banks to finance the inefficient projects which would not get private financing just because they tend to be politically desirable projects. If this is true then we expect to see that governmentally owned banks are also less profitable than other banks. A high governmental ownership in the banking sector subjects banks to a potential conflict that exists given the government's role as a regulator and its responsibility for the supervision of the financial markets. Therefore, this paper tries to find whether bank transparency is important in determining the amount of risk taking and performance of the banks in the GCC market.

Contrary to expectations, we find that governmentally owned banks are less risky than other banks. However, there is very limited evidence on the negative relationship between government ownership and bank profitability. As seen in the literature, bank size is positively and significantly related to bank profitability and negatively related to risk taking.

Future research will look at different measures of risk taking and performance. In addition, our next step is to see if there is a difference between the performance and risk taking behavior between conventional and Islamic banks. This subject is deemed necessary in this area, given the fast spreading movement of Islamic finance. In addition, we will be looking at the effect of financial crisis on the relationship between government ownership and both performance and risk taking.

REFERENCES

- Arellano, M., Bond, S., (1991). Some tests of specification for panel data. Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*, 58, 277-297.
- Baltagi, B.H. (2005). *Econometric Analysis of Panel Data*. John Wiley and Sons, Chichester.
- Blundell, R, Bond, S. (1998). Initial Conditions and Moment Restrictions in Dynamic Panel Data Models. *Journal of Econometrics*, v. 87, issue 1, 115-43.
- Boyd, John H and Graham (1986). Risk, Regulation and Bank Holding Company Expansion into Nonbanking. *Federal Reserve Bank of Minneapolis Quarterly Review* 10, no. 2, Spring 2-17.
- Boyd, John H and Graham (1988). The Profitability and Risk Effects of Allowing Bank Holding Companies to Merge with Other Financial Firms; A Simulation Study. *Federal Reserve Bank of Minneapolis Quarterly review* 12, no. 2, Spring 3-20.
- Brown, Craig, and Serdar Dinc (2005). The Politics of Bank Failures: Evidence from Emerging Markets. *Quarterly Journal of Economics* 120, 1413-1444.
- Calomiris, Charles W. and Joseph R. Mason (1997). Contagion and Bank Failures During the Great Depression: The June 1932 Chicago Banking Panic. *American Economic Review*. 87: 863-83.
- Caprio, G., and M. S. Martinez Peria (2000). Avoiding Disaster: Policies to Reduce the Risk of Banking Crises. *Egyptian Center for Economic Studies, Working Paper*, No. 47.
- Caprio, G., Laeven, L., Levine, R. (2007). Governance and Bank Valuation. *Journal of Financial Intermediation, forthcoming*.
- Claessens, S., Djankov, S., Lang, L. (2000). The Separation of Ownership and Control in East Asian Corporations. *Journal of Financial Economics*, 58, 81-112.
- Coles, J. L., Lemmon, M. L., Meschke, F. (2007). Structural Models and Endogeneity in Corporate Finance: the Link Between Managerial Ownership and Corporate Performance. *EFA 2003 Glasgow, Forthcoming Available at SSRN: <http://ssrn.com/abstract=423510>*
- Coles, J.L., Daniel, N., Naveen, L. (2006). Managerial incentives and risk-taking". *Journal of Financial Economics* 79, 431-468.
- Gilbert, R. Alton and Mark D. Vaughan (1998). Does the Publication of Supervisory Enforcement Actions Add to Market Discipline? *Research in Financial Services: Private and Public Policy*, 10, 259-280.
- Greenspan, A. (2003). Market Economies and Rule of Law At the 2003 *Financial Markets Conference of the Federal Reserve Bank of Atlanta, Sea Island, Georgia* (via satellite). <http://www.federalreserve.gov/boarddocs/speeches/2003/20030404/default.htm>
- Kaufman, George G. (1994). Bank Contagion: A Review of Theory and Evidence. *Journal of Financial Services Research*. 8: 123-50.
- Laeven, L., Levine, R. (2008). Complex ownership structures and corporate valuations. *Review of Financial Studies* 21, 579-604.
- La Porta, Rafael, Florencio Lopez-de-Silanes, and Andrei Shleifer (2002). Government Ownership of Banks. *Journal of Finance* 57, 265-301.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, R. (2002). Investor Protection and Corporate Valuation. *Journal of Finance*, vol. 57, no. 3, pp. 1147-1170.

Levine, R. (2003). The Corporate Governance of Banks: A Concise Discussion of Concepts and Evidence. Global Corporate Governance Forum. Discussion Paper No. 3. Washington, DC, *World Bank*.

Levine, R. (2006). Finance and Growth: Theory and Evidence. *Handbook of Economic*

Lin, X. and Y. Zhang (2009). Bank ownership reform and bank performance in China. *Journal of Banking and Finance* 33, 20-29.

Macey, J.R., O'Hara M. (2003). The Corporate Governance of Banks. *FRBNY Economic Policy Review*, 9, 91-107.

McAllister and McManus (1993). Resolving the Scale Efficiency Puzzle in Banking. *Journal of Banking and Finance*, Vol. 17, Nos. 2-3. Available at SSRN: <http://ssrn.com/abstract=1289829>

Shleifer, A. Vishny, R. (1986). Large Shareholders and Corporate Control. *Journal of Political Economy*, 94, 461-488.

Wald, A. (1943). Tests of statistical hypotheses concerning several parameters when the number of observations is large. *Transactions of the American Mathematical Society* 54, 426-482..

Wooldridge, J.M. (2002). Econometric Analysis of Cross Section and Panel Data. *MIT Press*, Cambridge, Massachusetts, London.

World Development Indicators (2011), World Bank. Available at <http://data.worldbank.org/indicator>.

AN INVESTIGATION INTO SHOPPING CENTRE EXPERIENTIAL EFFECTS UPON THE FASHION SHOPPING BEHAVIOUR OF INTERNATIONAL STUDENTS IN THE UNITED KINGDOM

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ABSTRACT

Retail Industry is growing rapidly across country especially in United Kingdom (UK). One of the many ways to keep doing business is to make their shop or retail area up-to-date with the recent trends or constant development to meet up with consumers' needs and wants. Consumers that needs to be given extra attention is the who willing to spend their time and money in shops or stores, those consumer are mostly young people. United Kingdom is the most country chosen for higher education, where international students are considered as part of the consumers group and they often do fashion shopping. This study has revealed that several factors have influence on international students to do fashion shopping and choose a preferred shopping centres which are product and brand variant, promotion and competitive price, and service quality.

INTRODUCTION

Nowadays, retailing is coping with new, more challenging direct distribution channels like catalogues, internet and cable TV. However the main benefit from direct channel distribution is that the conventional retailer is still able to offer their current services (Keng et al. 2007). When retailers preferred to define themselves as goods and service providers, they present a source of memories as an *experience stager* this is what Pine and Gilmore (1999) call an *experience economy*. Consequently, the retail sector has become more competitive, including shopping centre/malls that mean the retailer must create an entertaining experience within the shopping environment.

There is a significant increase of interest in shopping as a research topic in the last decade (Falk and Campbell 1997), and the trends show that shopping in malls have become less interesting and shopping centres are not effectively meeting the customers need (Nicholls et al. 2002). Even though shopping centres have increased in total numbers as well as types in UK since the 1960's, consumers have developed various choices of shopping destination because they have more time, more money or spending power and are prepared to travel further to shop (Kirkup and Rafiq 1999). There are around 156,000 students immigrated from outside EU to the UK and up to 273,435 visas were issued in 2009 (Blinder 2011). According to the Higher Education Statistics Agency (2011), the total number of students in the UK for 2009/2010 was 2,493,415 with 405,810 international (non-UK) students. There was an increase of 10% compared to the 368,970 international students in 2008/2009, composed of 68,450 total EU students and 340,235 total non-EU students (The UK Council for International Student Affair 2011).

In post-modern society, shopping is a cultural phenomenon and it is known as a social realm, experience and interaction that increasingly structure the urban people's daily practices (Falk and Campbell 1997). Today customers are demanding an experience rather than just the products (Howard 2007). Thus, shopping experience is more about stimulating our senses and curiosity rather than only finding out about the products (Fiore and Kim 2007). The purpose of this study is to investigate how the shopping experience factors of the shopping centre can influence international students fashion shopping behaviour.

LITERATURE REVIEW

Definitions

Retailing form the economic structure and the way of life as it is an integral part of the economic structure. There are several definitions of retail by experts. According to Levy and Weitz (2007), retail is a set of business activities that add value to products and services sold to consumers for personal or family use. Armstrong et al. (2006) describe retail as a whole activity in goods and services sold to end consumers for personal use and not for business use.

Shopping is a basic human activity that nearly every person in a civilised community becomes a part of. Services and establishments for shopping are very well associated with structures for entertainment, health, administration and education (Beddington 1991). Even though home shopping services are much more available now, shopping is still mostly going to the shopping areas. Shopping malls and supermarkets are the most visited areas and often shopping is a way of releasing stress and is a household routine (Dholakia 1999). According to Ibrahim and Ng (2002a), shopping centres refers to a combination of stores which are designed, planned, developed, marketed and managed as a unit, usually providing variety of shopping goods and services as well recreation and entertainment facilities.

Seo et al. (2001) stated that the activity when a consumer spends an amount of time and effort in the selection of fashion (apparel or clothing) could be considered as fashion involvement shopping. Behavioural variables in relation to fashion products such as consumer characteristics, product involvement and buying behaviour are predicted mainly using fashion involvement (Park et al. 2006). Fashion itself can be defined as a social judgment of practices, ideas or product from human collective behaviour, which has implication on many aspects in life of human groups (Solomon and Rabolt 2009). Walsh et al. (2001) interpreted fashion consciousness as the degree of involvement someone with style or fashion in clothing and suggested that the fashion conscious shopper who wants their clothing up to date with the latest styles and trend, they are the ones who get pleasure from shopping.

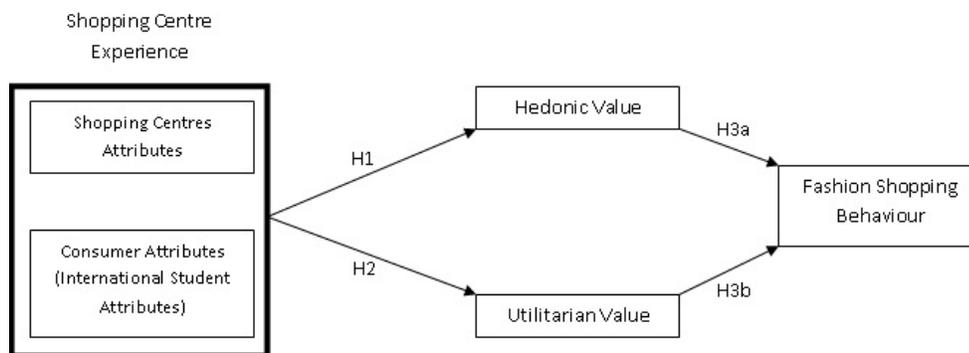
Shopping is a general event in human experience and the group dynamics that influence other elements of life may even be used for shopping related activities as many elements of social comparison are becoming outstanding in the shopping experience (Borges et al. 2010). These shopping experiences offer hedonic value to shoppers and show the experiential advantages of shopping (Babin et al. 1994). Moreover, a shopping centre is the main point of interest for the fashion oriented shopper and consumers who desire a high degree of excitement, fun and enjoyment (Babin et al. 1994), feeling a special experience when they enter the shopping centre (Haque and Rahman 2009). Many elements can contribute to the fashion shopping experience characteristic; Jones (1999), defined retailer attributes and customer attributes as two dominant categories that can affect it. Retailer attributes refer to those shopping centre attributes that might be used to influence shopper experience from shopping centre perspective. Customer attributes are those shopping experience major factors that characteristics and connected with the customers.

In evaluating shopping centres experience there are two important dimensions, namely its utilitarian value and hedonic value. Utilitarian shopping orientation refers to shopping process efficiency (Jones et al. 2006). Efficiency can be understood as maximum ratio between output (buying the right product with the right price) and input (effort needed, time and transportation). Utilitarian shoppers are focusing on efficiency, rational shopping, and time management in shopping to achieve a goal (Shang et al. 2005; Childers et al. 2001). Hedonic shopping orientations are more to the consumer benefits of the shopping process and the product capabilities to satisfy the wants and needs of buyers (Jones et al. 2006; Babin et al. 1994).

Hypotheses Development

As mentioned before, the aim of this research is to investigate the main factor in shopping experience that can influence the fashion shopping behaviour of international student in the UK in the shopping centre environment. Based on previous research in shopping experience topic held by Jones (1999) and Ibrahim and Ng (2002b), the framework is considered to be modified from the last one referring to the retailer and consumers attributes implementation in shopping experience. In addition, the framework shown in Figure 1 will help explain the research's purpose.

Figure 1: Research Framework



As suggested in the shopping experience literature, Jones (1999) divided two categories that contributed in shopping experience, but in this study the researcher will look at the influence of shopping centre attributes in shopping centre environment. By experiencing the shopping experience in shopping centre, there are two general attitude categories that appear. Based on the previous study, there are two general attitudes in shopping, namely hedonic and utilitarian. Hedonic and utilitarian value is the outcome of the advantage that shoppers get from the experience of shopping at the shopping centres Babin et al. (1994). Byounggho and Jai-Ok (2003) also identified that the two categories will affect the shopping behaviour in the future, therefore the following hypotheses are tested;

H₁: Specific factors of shopping centre attributes form a shopping centre experiences that can stimulate international students to become hedonic shoppers.

H₂: Specific factors of shopping centre attributes form a shopping centre experiences that can stimulate international students to become utilitarian shoppers.

On the previous study by Taylor and Cosenza (2002), they explained about mall shopping behaviour and clothing choice, thus the researcher will look at the influence of hedonic and utilitarian value on international student and how it relates to their fashion shopping behaviour. Therefore, the following hypotheses are tested;

H_{3a}: International students who become hedonic shoppers give a positive influence to fashion shopping behaviour.

H_{3b}: International students who become utilitarian shoppers give a negative influence in fashion shopping behaviour.

RESEARCH METHODOLOGY

Data were collected from questionnaires distributed to 150 international students in the UK. The students are older generation Y aged 18-27, both males and females to be the consumers' role. The questionnaire were divided into three parts; first part are personal details that can be used to examine demographic data, the second part are variable questions that were used to measure the hypotheses proposed and the third part are open-ended questions about shopping centres international comparison. All items for variable questions were measured on 5-point Likert scales ranging from strongly disagree to strongly agree. Shopping center attributes variable were measured by five dimensions. The dimensions are atmosphere, brand and product, price and promotion, service quality, and entertainment and facilities. Twenty five indicators to measure shopping center attributes were adopted from several previous studies (Lee et al., 2005; Sit et al., 2003; Michon et al., 2007; Ibrahim and Ng, 2002a; Wong et al., 2001). The four indicators to measure hedonic value and three indicators to measure utilitarian value were adopted from Babin et al. (1994). The six indicators that were utilized to measure fashion shopping behavior were adopted from Park et al. (2006).

In this study, the internal consistency reliability was measured by Cronbach's alpha with minimum score of 0.6 (Malhotra, 2009). We also assessed validity analysis using Pearson's product moment correlation coefficient (r). If the Pearson Correlation r value is greater or equal with the r table, then the indicator is valid (Collis and Hussey, 2003). In order to measure the relationship between independent and dependent variables, we used a linear regression analysis method.

RESEARCH RESULTS

The respondent profile is presented in Table 1. It showed that 68% of total respondents were from Asian backgrounds. This would be in large due to Asia the largest percentage to send its students to study abroad based on information from The UK Council for International Student Affair (2011). The respondents who

were in 26-27 years old are the most respondents in this research amounting to 33.3% of total respondents. Most of the respondents who filled the questionnaire were lived in Bournemouth with 47.3% of total respondents. Apparently, 79.3% of total respondents have their income from their parents (family).

The constructs reached the internal consistency reliability shown through Cronbach's alpha ranging from 0.826 to 0.904. However, only thirty out of 38 indicators were fulfilled the validity criteria. Table 2 has shown that there is a significant effect between specific shopping centre factors that form shopping centre experience and hedonic value. However, it also shows that there is no significant effect between specific factor of shopping centre attributes that form the shopping centre experience and utilitarian value. It showed that international students who become hedonic shoppers give a positive impact to their fashion shopping behaviour with the magnitude of influence being 64.3%. The result shows that there is a relatively strong positive influence between international students who become hedonic shoppers and their fashion shopping behaviour. Another hypothesis result shows that international students who become utilitarian shoppers give a negative impact to their fashion shopping behaviour with the magnitude of influence 15.9%. It means that there is a relatively low negative influence between international students who become utilitarian shoppers and their shopping behaviour in terms of influence.

Table 1: Respondent Profile

Description	Demographic Description	Respondent	Percentage
Gender	Female	75	50.00%
	Male	75	50.00%
Nationality Group	Asian	102	68.00%
	European	25	16.70%
	American	8	5.30%
	African	15	10.00%
Age Group	18-19	11	7.30%
	20-21	18	12.00%
	22-23	29	19.30%
	24-25	42	28.00%
	26-27	50	33.30%
City that you live in the UK	Bournemouth	71	47.30%
	London	24	16.00%
	Glasgow	33	22.00%
	Newcastle	22	14.70%
Source of income	Parents (family)	119	79.30%
	Scholarships	9	6.00%
	Part time job	15	10.00%
	Others	7	4.70%

Table 2: Hypotheses Testing Summary

No.	Hypothesis	Sig. Value	Magnitude of Influence	Conclusion
H ₁	Shopping centre attributes → Hedonic Value	0.000	0.337	Accepted
H ₂	shopping centre → utilitarian Value.	0.444	- 0.063	Rejected
H _{3a}	Hedonic Value → Fashion Shopping Behavior	0.000	0.643	Accepted
H _{3b}	Utilitarian Value → Fashion Shopping Behavior	0.027	- 0.159	Accepted

DISCUSSION

Shopping centre attributes are the important factors that can influence international student to go fashion shopping. Several shopping centre attributes that have been previously used by Haque and Rachman (2009) and Jones (1999) such as selection of brands, cleanliness, unique interior design and the quality of service were highly considered as the main important attributes. Those particular attributes were also part of the 17 indicators that were found on this research and considered to be the main factor that can form the shopping experience and influence the international students to go to the shopping centre and perform a fashion shopping. Furthermore, the result also reveals that the hedonic international student shopper was stimulated by the 17 indicators of shopping centre attributes because the hedonic shopper are more concern to the shopping experience rather than to fulfil their functional needs. However, the 17 indicators of shopping

centre attributes are not able to stimulate the international students to become utilitarian shopper. The result supports the notion from Stoel et al. (2004) and Carpenter et al. (2005) which states that the motivation behind the utilitarian shopper is about task accomplishment since utilitarian shopper's reason for shopping is merely to enjoy the functional attributes from the product not from the shopping experience.

The findings gives an understanding that there are two values that influence the fashion shopping behaviour of international students in the UK, which are of hedonic and utilitarian value. Moreover, in testing the hypotheses, it was revealed that the international students who were considered as hedonic shoppers gave a positive influence to their fashion shopping behaviour while the international students who were considered as utilitarian shopper showed a negative influence to their fashion shopping behaviour. The positive influence arose as the hedonic shopper tends to have higher fashion involvement, hence the frequency of doing the fashion shopping are also increasing. The result is supported by the previous research from Stoel et al. (2004) and Dholakia (1999), which stated that when doing fashion shopping, consumer with hedonic value tends to be more energised and satisfied because for the hedonic shopper, fashion shopping is a way to express themselves. This finding will become useful for the shopping centres developer and marketer to determine which consumer that they will have to focus on. They need to aggressively pursue the fashion conscious shoppers as these shoppers will shop more often, but while these fashion conscious like shopping and want variety, they also price sensitive.

On the contrary, the negative influence on the relationships between the utilitarian shopper and fashion shopping behaviour can be explained as they only do fashion shopping to fulfil their functional needs. When being compared to previous studies by Carpenter et al. (2005) and Kim and Kim (2005) the result shows a similar pattern where in fashion shopping the utilitarian shopper did not find pleasure in shopping, while they tend to shop less and stop shopping when already find the right product. Moreover, the findings of the research also supported that in the fashion shopping, female international students are more hedonic while the male international students tend to be utilitarian and task oriented. This finding is quite common in fashion research, nevertheless several previous research stated that recently man are no longer define as fashion-less or not interested in fashion, they are changing their focus and orientation from conservative clothing to fashion clothing (Kacen 2000; Vieira 2009).

LIMITATIONS AND SUGGESTION FOR FUTURE RESEARCH

Even though the researcher has attempted to conduct the best practices during this research, like all previous research, there are still several limitations. First, this study focuses on international students who were studying in the UK at the time of the research and due to the limitation of sampling size and scope of the research; the data were collected only in four cities in the UK. Therefore the findings in this study may not generalize well to the entire populations of international students in the UK. To make an improvement on the result of this research, the further research should attempt to include a more representative sample, which can include cross-national comparisons or wider geographic locations. Second, there is also a focus on the respondent's age because broader range of ages may have dissimilar views and purposes towards fashion shopping behaviour in comparison to a specific age group of generation Y.

Third, this study conducted with limited time between January to April 2012, further research may take a longer period of time to conduct better research. Moreover, this research were using four variables as an independent and dependent variable, further research should consider on adding more variables such external attributes (transportation facilities, mass media publications and advertising). With the growth of online retailing recently, further research may consider on investigating the impact of online shopping towards the shopping centres. Furthermore, the study is limited due to the general use of fashion shopping rather than types or brands. In the further research, this study could be extended to different fashion product categories or fashion branding.

REFERENCES

Armstrong, G., Kotler, P., & da Silva, G. (2006). *Marketing: An Introduction – An Asian Perspective*. United Kingdom: Pearson Education.

- Babin, B.J., Darden, W.R., & Griffin, M. (1994). Work and/or Fun: Measuring Hedonic and Utilitarian Shopping Value. *Journal of Consumer Research*, 20(4), 644-656.
- Beddington, N. (1991). *Shopping Centres: Retail Development, Design and Management*. 2nd ed. Oxford: Butterworth Architecture.
- Blinder, S. (2011). Briefing: Non-European Student Migration to the UK. The Migration Observatory at the University of Oxford. Available from: <http://migrationobservatory.ox.ac.uk/briefings/non-european-student-migration-uk> [Accessed 28 October 2011].
- Borges, A., Chebat, J.C., & Babin, B.J. (2010). Does a Companion Always Enhance the Shopping Experience? *Journal of Retailing and Consumer Services*, 17(4), 294-299.
- ByoungHo, J., & Jai-Ok, K.. (2003). A Typology of Korean Discount Shoppers: shopping motives, store attributes, and outcomes. *International Journal of Service Industry Management*, 14(4), 396-419.
- Carpenter, J.M., Moore, M., & Fairhurst, A.E. (2005). Consumer Shopping Value for Retail Brands. *Journal of Fashion Marketing and Management*, 9(1), 43-53.
- Childers, T.L., Carr, C.L., Peck, J., & Carson, S. (2001). Hedonic and Utilitarian Motivations for Online Retail Shopping Behaviour. *Journal of Retailing*, 77(4), 511-535.
- Collis, J., & Hussey, R. (2003). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. 2nd ed. Basingstoke: Palgrave Macmillan.
- Dholakia, R.R. (1999). Going Shopping: Key Determinants of Shopping Behaviour and Motivations. *International Journal of Retail and Distribution Management*, 27(4), 154-165.
- Falk, P., & Campbell, C. (1997). *The Shopping Experience*. London: SAGE.
- Fiore, A.M., & Kim, J. (2007). An Integrative Framework Capturing Experiential and Utilitarian Shopping Experience. *International Journal of Retail and Distribution Management*, 35(6), 421-442.
- Haque, A., & Rahman, S. (2009). Exploring Customers' Shopping Experience through Shopping Center Branding in Malaysia. *Journal of Management Research*, 9(3), 167-181.
- Higher Education Statistics Agency. (2011). *Headline Statistics*. Available from: <http://www.hesa.ac.uk/> [Accessed 28 October 2011].
- Howard, E. (2007). New Shopping Centres: Is Leisure the Answer? *International Journal of Retail and Distribution Management*, 35(8), 661-672.
- Ibrahim, M.F., & Ng, C.W. (2002a). The Importance of Entertainment in the Shopping Center Experience: Evidence from Singapore. *Journal of Real Estate Portfolio Management*, 8(3), 239-254.
- Ibrahim, M.F., & Ng, C.W. (2002b). Determinants of entertaining shopping experiences and their link to consumer behaviour: Case studies of shopping centres in Singapore. *Journal of Leisure Property*, 2(4), 338-357.
- Jones, M.A. (1999). Entertaining Shopping Experiences: An Exploratory Investigation. *Journal of Retailing and Consumer Services*, 6, 129-139.
- Jones, M.A., Reynolds, K.E., & Arnold, M.J. (2006). Hedonic and utilitarian shopping value: Investigating differential effects on retail outcomes. *Journal of Business Research*, 59(9), 974-981.
- Kacen, J.J. (2000). Girl Power and Boy Nature: The Past, Present and Paradisal Future of Consumer Gender Identity. *Marketing Intelligence and Planning*, 18(6/7), 345-355.
- Keng, C.J., Huang, T.L., Zheng, L.J., & Hsu, M.K. (2007). Modelling Service Encounters and Customer Experiential Value in Retailing: An Empirical Investigation of Shopping Mall Customers in Taiwan. *International Journal of Service Industry Management*, 18(4), 349-367.

- Kim, E.Y., & Kim, Y.K. (2005). The Effects of Ethnicity and Gender on Teens' Mall Shopping Motivations. *International Textile and Apparel Association*, 23(2), 65-77.
- Kirkup, M.H., & Rafiq, M. (1999). Marketing Shopping Centres: Challenges in the UK Context. *Journal of Marketing Practice: Applied Marketing Science*, 5(5), 119-133.
- Lee, S.L., Ibrahim, M.F., & Hsueh-Shan, C. (2005). Shopping-Centre Attributes Affecting Male Shopping Behaviour. *Journal of Retail and Leisure Property*, 4(4), 324-340.
- Levy, M., & Weitz, B. (2007). *Retailing Management*. 6th ed. New York: McGraw-Hill
- Malhotra, N. K. (2009). *Marketing research: An applied orientation*. 6th ed. New Jersey: Pearson Education.
- Michon, R., Yu, H., Smith, D., & Chebat, J.C. (2007). The Shopping Experience of Female Fashion Leaders. *International Journal of Retail and Distribution Management*, 35(6), 488-501.
- Nicholls, J.A.F., Li, F., Kranendonk, C.J., & Roslow, S. (2002). The Seven Year Itch? Mall shoppers across time. *Journal of Consumer Marketing*, 19(2), 149-165.
- Pine, B.J., & Gilmore, J.H. (1999). *The Experience Economy: Work Is Theatre and Business a Stage*. Boston, Massachusetts: Harvard Business School Press.
- Seo, J.I., Hathcote, J.M., & Sweaney, A.L. (2001). Casualwear Shopping Behaviour of College Men in Georgia, USA. *Journal of Fashion Marketing and Management*, 5(3), 208-222.
- Shang, R.A., Chen, Y.C., & Shen, L. (2005). Extrinsic versus Intrinsic Motivations for Consumers to Shop On-line. *Information and Management*, 42(3), 401-413.
- Sit, J., Merrilees, B., & Birch, D. (2003). Entertainment-Seeking Shopping Centre Patrons: The Missing Segments. *International Journal of Retail and Distribution Management*, 31(2), 80-94.
- Solomon, M.R., & Rabolt, N.J. (2009). *Consumer Behaviour in Fashion*. 2nd ed. Upper Saddle River, New Jersey: Pearson Prentice Hall.
- Stoel, L., Wickliffe, V., & Lee, K.H. (2004). Attribute Beliefs and Spending as Antecedents to Shopping Value. *Journal of Business Research*, 57, 1067-1073.
- Taylor, S.L., & Cosenza, R.M. (2002). Profiling Later Aged Female Teens: Mall Shopping Behavior and Clothing Choice. *Journal of Consumer Marketing*, 19(5), 393-408.
- The UK Council for International Student Affairs. (2011). International Students in UK Higher Education: key statistics. Available from: http://www.ukcisa.org.uk/about/statistics_he.php#table1 [Accessed 02 November 2011].
- Vieira, V.A. (2009). An Extended Theoretical Model of Fashion Clothing Involvement. *Journal of Fashion Marketing and Management*, 13(2), 179-200.
- Walsh, G., Mitchell, V.W., & Hennig-Thurau, T. (2001). German Consumer Decision-Making Styles. *Journals of Consumer Affairs*, 35(1), 73-95.
- Wong, G.K.M., Lu, Y., & Yuan, L.L. (2001). SCATTR: An Instrument for Measuring Shopping Centre Attractiveness. *International Journal of Retail and Distribution Management*, 29(2), 76-86.

PERCEIVED PREVALENCE OF SOCIAL MEDIA ON BRAND IMAGE: A THEORETICAL AND EMPIRICAL INVESTIGATION OF THE LUXURY FASHION SECTOR

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ABSTRACT

It is widely recognised that a better understanding of social media and its implications is essential for formulating effective branding strategies in evolving Computer-Mediated Marketing Environments (CMMES). However, few studies have examined how social media influences brand image in the luxury sector. The current study intends to examine whether increased exposure in social media influences brand image in technologically-infused marketing environments. Drawing on extant literature from various perspectives (in areas such as marketing, information management, communications studies) this study examines exposure to social media and how this influences consumer perceptions about luxury fashion brands. The current analysis develops a critical examination of social media and the perceived prevalence on brand image by elucidating overwhelming perspectives in the evolving technological marketing environments. Unlike prevailing positivist studies, this analysis provides some insights into qualitative research in terms of social media following a social constructivist perspective.

INTRODUCTION

Consumers have embraced the internet and the social community it has supported in the recent past. Market research has been going through changes and developments in social communications. Social media has changed traditional brand manager- consumer relationships by empowering consumers to communicate with each other instantly (Christodoulides and Jevons, 2011). The rise of Web 2.0 has transformed the way content is generated on the web. Previous studies have addressed social media by examining the role and influence on customer equity (Kumar and George, 2007; Dan and Dan 2011; Kim and Ko 2011) purchase intention (Kim and Lee 2009, Park, Ko and Kim 2010). What these studies have in common is that they consider social media as online applications; platforms and media which facilitate interactions among customers, enabling deeper relationships between them. Kim and Ko (2012), for example, presented statistical analysis of social media on customer equity. Others, presented illustrative statistical evidence of the influence of social media on brand relationships (McAlexander, Schoulten, Koenig 2002; Dou, Lim, Su 2010; Cova and White, 2010; Sukoco and Wu, 2010). Regardless of these preliminary studies in the evolving technological tapestry, much is still unknown about how social media influences brand relationships and brand images in the luxury fashion sector. Drawing from a social constructivist perspective and breaking with the trend towards quantitative research, the current study aims to examine consumer brand perceptions of the evolving interactive market space. Thus the purpose of this study is to examine how social media facilitates interactions and brand relations in the emerging technological environments. For this purpose, a social constructivist perspective will be utilized, adopting a postmodern ethnographic approach to question consumer experiences and perceptions of social media in molding brand relationships and brand images in the luxury fashion sector. Kim and Ko's (2011) work on social media and customer equity is helpful in considering the importance of social media on customer equity and brand perceptions. Kim and Ko (2011) note that 'the brand's social media platforms offers venues for customers to engage in sincere and friendly communications with the brand and other users, so the brand's intended actions on the social communication scene were positively affecting relationship equity and brand equity as well' (p. 1484). Kim and Ko suggest that social media leverages and facilitates informal relationships within customer social network activities, but offer few suggestions on how social media creates effective online brand communities. The current study develops on this in seeking to examine how consumer participation and

experiences in social media influences brand perceptions and relationships. The luxury industry has changed significantly in the last decade. With growing interest in using social media as a means to attract more customers through effective communications, luxury brands started to incorporate an e-business into their strategies. In a study of luxury brands in the Internet environments, Balwani (2009) stated that there is a doctrine among brand managers that the Internet is not a luxury market. Of more relevance to the study of Internet and its prototypical subsets, is the higher order of personalization, and closer interaction through social networking sites. With global populations nearing 2 billion having an online presence, this makes the Internet a place where luxury brands must build a presence rather than endangering luxury brands. Although, the nature of internet environments has changed over the last 4 years, our review provides a contribution beyond Balwani's, in addition to reviewing a number of extant work published in the last 4 years. The current paper goes beyond this and adds new details on how social media platforms influence brand image and brand communities in the luxury fashion sector.

THEORETICAL FRAMEWORK AND CONTEXT

Prior to defining social media, it is important to underline its relationship to Web.2.0. During the early stages of the World Wide Web (Web 1.0), users could only view web pages but could not contribute to the content of these. From 2004, the term Web 1.0 transformed into Web 2.0 site. Which allow users to interact and create user - generated content on the virtual community (O'Reilly, 2005). Web 2.0 is not only increasing usage of the internet, but changing the way users reach each other to share comments, thoughts or information about a particular subject. Therefore the new user behaviour prevalent in this Web 2.0 setting are what give the social web an acknowledged accreditation of existence (Berthon et al., 2012). Kaplan and Haenlein (2009, p.60) stated that "a formal definition of social media requires drawing a line between two related concepts that are frequently named in conjunction: Web 2.0 and user generated content". The term Web 2.0 is used to describe a new approach to using the World Wide Web as a co - existing platform for software developers and end-users involved in modifying content and applications at the same time. Kaplan and Haenlein (2010) also describe three elements that identify social media: concept, which consists of art, information, image or video that is passed electronically from one internet user to another; media that can take a physical, electronic or verbal form; and social interface, which are community engagement, social viral or other physical media.

The concept of social media is generating increased interest in marketing and information management (Zarella 2010, Johnston 2011, Dan & Dan 2011, Kaplan & Haenlein 2009). For marketing, Dan and Dan (2011) note that 'the principle underpinning the rise of social media as a current modus operandi for the internet is an inherent belief in the value of connecting with other people,' Implicitly, one of the driving forces of social media is the increased number of users in social media environments. Dann and Dann (2011) describe social media as an interconnection between content, users and communications technologies that includes Facebook, Twitter or Google. The theory justifying social media as a rising tool for Internet technology is deep-rooted in an importance of connecting with other people. Dann and Dann (2011) portrayed social media as having three components that link with and complement one another. One element of social media is communications. This virtual infrastructure provides a coexistence between social interaction and content in real time and in the same virtual space. Examples include Facebook, YouTube and Flickr. The second component of Social Media is content which attracts individuals to the site, like photos on www.flickr.com or videos on www.youtube.com. Another component is a social interaction which connects one user with another through the site, for instance on Facebook or Twitter.

Zarella (2010) describes social media in contrast with traditional media, where, with the interference of new technologies, anyone can create or circulate comments. Social media comes in many forms like blogs, social networks, media-sharing sites and others. This definition of social media is supported by Uzelac (2011) who considers social media as "a give-to-get environment"; the opposite of traditional media sites. From another point of view social media is a two-way platform, where people communicate and share information (Johnston, 2011). Blackshaw-Nazzaro (2006) suggests social media has emerged alongside sources of online information that are created, circulated and shared and used to inform other consumers about products, brands, services and issues. Stokes (2008) describes social media as media designed to be shared. Sharing means that it is easy to comment on content and to exchange information. It is also possible to view media at a lower cost. He compares social media and Traditional media in the Table below

Traditional Media
Social Media

Fixed, unchangeable
Instantly updateable
Commentary limited and not real-time
Unlimited real-time commentary
Limited, time-delayed bestseller lists
Instant popularity gauge
Archives poorly accessible
Archives accessible
Limited media mix
All media can be mixed
Committee publishers
Individual publishers
Finite
Infinite
Sharing not encouraged
Sharing and participation encouraged
Control
Freedom

Source : Stokes (2008)

Blackshaw and Nazzaro (2004) describe social media as a variety of online information that is created and used by users in order to educate other users about brands, services or products and other issues. The messages transmitted through social media has a great impact on consumer behaviour and influence decision making. But business press and academic literature have stopped short of advising marketers about how to integrate social media into marketing strategies (Mangold and Faulds, 2009). Chung and Austria (2010) suggest that social media consists of different methods of communication online, such as blogs, social networking, podcasts, company sponsored websites and multimedia sites. According to these authors social media refers to the range of proceedings that involves individuals in online communications. Many authors understand social media as social network sites (Zarella 2010; Boy and Ellison 2007; Fraser and Dutta, 2008). For example, Boy and Ellison (2007) define social network sites as web based services that enable users to create a public or semi-public profile within a constrained system. They enable users to share information with other users with whom they have a connection and extend across their list of connections within the same system. Fraser and Dutta (2008) categorised social networking sites into five groups: “egocentric/identity construction social networking sites”, like Facebook or MySpace; “opportunistic”, which is based on business connections, like LinkedIn; “community” social networking sites. They bounds users by cultural or neighbourhood backgrounds; sites like You Tube or Flickr are “media-sharing” social networking sites and “passion-centric” is a social networking site based on sharing common interests, like Dogster. Marketers attempt to employ the social media in marketing strategies to increase sales and profits. Regardless of interest in social media, there is a lack of academic research to develop an understanding of social media as a new phenomena (Kaplan and Haenlein, 2010).

ONLINE COMMUNITY BRAND ENGAGEMENT

The internet has enabled people around the world to communicate with each other instantly, despite geographical distances and different time zones. Within social media sites, users unite and create their own communities. The modern concept of community embraces the idea of a group of people bonded by culture, who do not necessarily live in a similar neighbourhood (Rheingold, 1996). For community to progress, members have to have shared feelings or belongings (Weber, 1978). According to Preece (2001) the online community can be understood as a group of people who interact socially to satisfy their own needs or play a special role within the community. The notion of organising such a community rests on the basis of similar interests, needs, information or even services. As the popularity of online communities grows, marketers and consumers create and encourage relationships between consumers and brands. While marketers can promote and build brands by advertising their products and services, consumers can build online brand communities and actively attract other consumers to engage in community activities (Lee et al, 2009). Muniz and O'Guinn (2001) introduced the idea of brand community as "a specialised, non-geographically bound community, based on a structured set of social relationships among admirers of a brand". Muniz and O'Guinn's study of brand community revealed the social nature of brands and suggested an extension and a shift away from traditional models of customer-brand relationship towards a customer-customer-brand triad.

SOCIAL MEDIA AND BRAND COMMUNITIES

There is a continuous discussion around whether brands should be present in social media (Cova and White 2010, Brasel 2012, Bruhn, Schoenmueller and Schafer 2012). For example, Laroche, Habibi and Richard (2012) support this idea, as they consider social media to be medium between brands and customers. Companies developing this relationship between brands and customers may become more loyal to the brand. Today, companies and their brands should consider social media as one of the main marketing activities. Social media opens up new channels for interactions and can entirely reposition brands by facilitating interactions between customers and the organisations they interact with (Divol, Edelman, Sarrazin, 2012). According to Mangold and Faulds (2009), social media is a new fusion of the promotion mix. While in traditional marketing communications, promotion is controlled by advertising, selling, direct marketing and harnessing customer services tools. In social media marketing, control over the promotional mix is minimised. Now companies with social media presences have less power to affect consumer choices. Social media platforms are independent and allow consumers to communicate with each other. Even though marketers cannot control the dissemination of information, they can still monitor and input to debates (Mangold and Faulds, 2009).

Mangold and Faulds (2009) argued that few companies regard social media as a significant part of their promotional mix. Despite the fact that social media has an influence on marketplace, the modus operandi in shaping relevant activities is not as effective as it can be. It is important to acknowledge that consumers perceive social media as a trustworthy source of information; moreover that other aspects of the marketing mix (Foux, 2006). For example, social media sites like Facebook or Twitter enable people to 'befriend' or 'follow' favourite brands and to identify germane brand communities. They can also build network relationships and exchange brand information. In 2009, Ferrero's Nutella Facebook page was the third most popular corporate page tallying some 4.9 million fans. Effective communication with customers made Nutella one of most successful brands on Facebook (Wasserman, 2009; Cova & Pace, 2006). There are a few other successful companies like Jeep or Harley Davidson (Shau, Muniz & Arnold, 2009) that have built their brand communities on social media platforms such as Facebook and MySpace (Kaplan & Haenlein, 2010). Brand communities support their members by sharing essential information and they draw attention to different values (Shau, Muniz & Arnould, 2009). "What makes social media so potent: its ability to amplify word-of-mouth effects" (Divol, Edelman, Sarrazin, 2012). Mangold and Fauld (2009) state that one of the functions of social media is to facilitate discussions amongst customers. Social media is an extended form of traditional word-of-mouth communications.

Currently, increased usage of social media amongst consumers helps them to make purchase decisions and assess brands in the evolving internet platform. As a result, companies can reach their customers and influence their decision making and buying behaviour (Swain, 2009). Social media has marginalised the obstacles to the flow of the information amongst people and it is now easier for marketers to communicate with their customers and target the audience that are not familiar with the brand.

According to Shaver (2007) companies need to build a strong social media presence in order to attract customers, as they are influenced by social media. In order to build the relationship and gain trust and loyalty the presence of social media require companies to set strategies for social media presences. However, some researchers argue that brand communities based on social media could produce positive effects for brands. Kim and Ko (2010) stated in their research that social media has had a great influence on brand reputation. Others, like Fournier and Avery (2011) contradict these statements by saying that social media is not always an ideal environment for brands. Companies might be at risk (Fournier & Avery, 2011), as customers have more power than before and companies increasingly struggle to manage information about their brand. Customers can get involved in discussions or online complaints with they are not satisfied with the brand (Kaplain & Haenlei, 2010; Ward & Ostrom, 2006). And also consumers may produce their own understanding of meaning and strategy related to the brands they favor (Wipperfurth, 2005). Hence these consumers produce a linking value that is not always exactly what the brand strategist had carried in mind (O'Guinn & Munis, 2005)

SOCIAL MEDIA AND BRAND IMAGE

The first introduction to the concept of brand image can be traced to 1955 (Gardner & Levy). According to these authors, the understanding of brand image was based on the social, physical and psychological nature of the product. How customers feel and think about the brand and associate themselves with the image of brands was recognized as important. Aaker (1991) describes brand image as a group of associations, grouped in a meaningful way. Brand image suggests the perception of a particular brand and also the image of a company that offers a product or service. The positive experiences of consumers with brand builds stronger relationship between them. Consumers value the brand through brand associations, even though they have no direct experience with the product or service (Aaker, 1991). Similarly, Keller (1998) suggests that brand image is a reflection of brand associations on consumer memories. He categorized brand association into four types as follows:

1. types of brand association: attributes, benefits and attitude
2. favorability of brand associations
3. strength of brand associations
4. uniqueness of brand associations

In addition, Kapferer (2008) states that brands are intangible assets and they create value. This is consistent with Herzog and Britt (1966) who define brand image as the sum of influences over customer experiences, packaging, name, product make, people using the brand, advertising, form and tone of advertising and other brand associations. According to Keller (1993), many scholars have proposed different definitions of brand image and there has been little consensus regarding the most appropriate definitions of symbolism, message, personification, cognition and psychological dimensions (Dobni and Zinkhan, 1990). In this paper, a definition of brand image according to Gronroos' (2010) is accepted as appropriate. Aaker's (1995) model where the organization creates the brand is less relevant in social media context. Gronroos (2010) states that traditional definitions of 'brand' exclude the customer and presumed that the company creates the brand, which then influence how customers perceive brands. Due to the increased usage of social media websites by consumers, brands, products and companies are increasingly judged by more than one-third of social media users (Burshtein & Turco, 2010) and many brands are linked to user-generated content through search engine results (Rein, 2011). This is favourable for brand marketers to promote their brands and encourage customers to engage others by sharing experiences (Parise et al, 2008). Many authors state that the appearance of Web 2.0 allows brands to collaborate with loyal customers and at the same time produce a linking value for the brand (Cova & Cova, 2002). Social media allows brand owners to advertise (using viral marketing), develop products (via consumers involvement in design process) and create market intelligence (by analysing user-generated content) (Richter et al 2011).

CONCLUDING REMARKS

Social media and brands have been studied from many different perspectives. For example, Cova and White (2010) discussed the key concepts of brand community and the co-creation of value as well as emerging new trends in online community behavior. These researchers adopted a case-study strategy, which was based on a dual ethnographic and netnographic method. They revealed that these communities may pose a risk for companies by developing competitive offerings. The findings indicate two reasons that may motivate consumers to switch to non conventional brands. The authors suggested that one of the reasons is when

consumers feel that they are not getting value- for- money product or service from brands. The second reason is when consumers want to develop their own online communities that are not dependent on organisations or brand communities. But it seems much remains unknown about how brands influence brand-consumer relationships. Other researchers such as McAlexander, Shoulten and Koenig (2002) found consumers and marketers building communities together. Companies and their brands will benefit from cultivating a brand community. Because community -integrated customers contribute to brand communities by playing a role of brand missionaries and endorse marketing communications into other brand communities. Customers emotionally attached to a community invest in the welfare of the company and are determined to further develop the company's success. Also Laroche, Habibi and Richard (2012) summarized debates over the activities of brands in social media environments. The aim of their study was to show how brand communities influence the elements within the customer-centric model. Structural equation modeling highlighted the fact that brand communities established on social media are positively effecting customer-customer-brand relationships. These relationships in their turn, positively affect brand loyalty and trust. However, these studies concentrate more on customer centric relationships and less on how brands facilitate interactions with customers.

Sukoco and Wu (2010) argue that there remains a knowledge gap in terms of customer motivations to identify and integrate into brand communities. The study proposed two main consumer motivations: self -related (which consists of enjoyment and knowledge) and social - related (which refers to affiliation and social status). The findings of this research are based on the assumption that members of brand communities support each other and get involved in community activities to update product knowledge. This study underlines that marketers need to consider complex motivations to facilitate and organize brand community activities. The results of this study can be used as reference for academics and marketers engaged with brand communities. But there seems to be a need in future research to explore other motivations by using different motivation theories. For example, to examine how online communities being developed and what drives consumers to join these communities.

Brasel (2012) suggests that many traditional forms of brand communications are no longer relevant in the current media environment. The research shows that incidental exposure to a brand alters consumer behavior in a way that is consistent with brand identity. The findings suggest that strong brand identities can retain effectiveness in the social media environment. Therefore, there is a need to explore the multi-dimensional effects of brand identities on consumer brand perceptions in media environment. Bruhn, Schoenmueller and Schafer (2012) examined the influence of brand communications on brand equity by means of social media while compared with traditional media. This empirical study has shown that traditional and social media communications have had a valuable impact on brand equity. If traditional media mostly influence brand awareness, social media influence the brand image. Constantinides (2004) explored how to attract and retain customers in internet market places. The research was based on identifying factors affecting online consumer behavior. The findings of this study revealed three components of web experience: functionality through usability and interactivity, trust and credibility, and attractive content of online presentations that influence online consumer behavior. This study was very useful in understanding how web experience components input to the online customer decision making process and how they may help to develop an attractive internet presence for brands. To support this study, Erdogmus and Cicek (2012) researched the impact of social media marketing on brand loyalty and revealed that customers are positively influenced when brands offer advantageous campaigns, interesting content and interactive applications on social media. However, there is a need to further explore the nature of technologies delivering new forms of communication to understand interactions and the perceptions of online consumers.

Dou, Lim and Su (2010) studied brand-positioning strategies using search engine marketing. The study showed that search engine results could be used as tools for creating brand positioning. The research sheds more light on the importance of SEO efforts by lesser-known brands. The study also provides guidelines for organisations willing to optimize their display rankings. The employment of search engines as free promotional tools can help organizations build their brands and gain competitive advantage in the market place. Research by Naylo, Lamberton and West (2012) focused on a key practice within the social media domain. The results of their four studies reflect that the presence of online supporters is passively experienced and virtual and their demographic attributes can influence consumers brand evaluations and purchase intentions. Kim and Ko (2011) identified several attributes of social media marketing activities and examined the relationships between these activities. The following are five constructs of the SSM activities of luxury fashion brands: entertainment, interaction, trendiness, customization and word of mouth. Many fashion luxury brands create their own online accounts or communities with the purpose of communicating

with customers. Moreover, social media marketing activities provide the opportunity to minimize misunderstandings and preconceptions towards brands. With the increased usage of social media platforms by luxury brands Kim and Ko (2011) have chosen to quantitatively analyze the effects of social media. The results indicate that brands using social media entertain customers by offering different content including social networking activities and this facilitates customized information searching. It also offers interactions amongst users that leads to word of mouth effects and includes fashion and trend attributes.

For this purpose a social constructivist perspective was employed, adopting a postmodern ethnographic approach to question consumer experiences and perceptions of social media on constructing brand relationships and brand image in the luxury fashion sector. Social constructivism underlines the importance of culture and context. It embraces the understanding of what is found in society and how knowledge is constructed based on this understanding (Derry, 1999; McMahon, 1997). The postmodern ethnographic approach encourages the idea of a reexamination of every aspect of existence, with the goal of finding that which was "holding back" progress, and replacing it with the new one (Denzin and Lincoln, 2011). With the advent of internet technology understanding the communities needs to be re-examined to deeply investigate online communities' characteristics and their role for brands and consumers. The emergence of internet technology ushered in number of online marketplaces. Social media, as one of the marketplace platforms, have become a significant part of modern life. Therefore, companies integrate their presence on the web and use social media as a tool for their brand positioning. This paper has examined a number of conceptual theories related to social media and brand perception. Following this articulation social media and online brand communities were examined against consumer decision making process. However, review of existing literature indicated that there seems to be limited study on how online brand communities influence brand image in luxury fashion sector. To elaborate on the influence of social media on brand image, this study has addressed a set of aims and objectives to explore how social media could be used by luxury fashion brands to improve their presence in brand communities and social media platforms. This study offers a different approach to question customers experiences and perceptions of social media on building brand relationships and brand communities.

REFERENCES

- Aaker, D. A. (1991). *Managing brand equity: capitalizing on the value of brand name*. New York: Free Press.
- Algesheimer, R., Dholakia, U., & Hermann, A. (2005). The social influence of brand community: Evidence from European car clubs. *Journal of marketing*, 69(3), 19-34.
- Armano, D. (2009). *Six social media trends for 2010*. Retrieved December, 29, 2012 from http://blogs.hbr.org/cs/2009/11/six_social_media_trends.html
- Baker, S. (2009). *Beware Social Snake oil*. Business week. 4159, 48-51.
- Balwani, S. (2009). *Understanding luxury brands and social media*. Retrieved January, 17, 2013, from <http://mashable.com/2009/07/02/luxury-brands/>.
- Bangert-Drowns, R. L., Wells-Parker, E., & Chevillard, I. (1997). *Assessing the methodological quality of research in narrative reviews and meta-analyses*. American Psychological Association, 405-429.
- Berkeljon, A. & Baldwin, S. (2009). *An introduction to meta-analysis for psychotherapy outcome research*. Psychotherapy research. 19 (4-5), 511-518
- Bernoff, J., & Li, C. (2008). *Harnessing the power of the oh-so-social web*. MIT Sloan Management Review, 49(3), 36.
- Berthon, P., Pitt, L., Plangger, K. & Shapiro, D. (2012). *Marketing meets Web 2.0, social media, and creative consumers: Implications for international marketing strategy*. Business Horizons. 55, 10.
- Birkner, C. (2011), "Sharing the love", Marketing News, 45 (3), 20-23.
- Blackshaw, P., & Nazzaro, M. (2004). Consumer-Generated Media 101: Word-of-Mouth in the Age of the Web- Fortified Consumer Spring. Retrieved March 1, 2006, from <http://www.intelliseek.com/whitepapers.asp>

- Booth A. Cochrane or cock-eyed? How should we conduct systematic reviews of qualitative research?. Paper presented at the Qualitative Evidence-Based Practice Conference: Taking a critical stance; Coventry University; 2001.May, Retrieved February 13, 2013, from Education-Line at <http://www.leeds.ac.uk/educol/documents/00001724.doc>.
- Boorstin, D.(1974). *The americans: the democratic experience*.New York: random house.
- Botha, E., Farshid, M., & Pitt, L.(2011). How Sociable? An exploratory study of university brand visibility in social media. *South African Journal of Business Management*, 42 (2), 15–23.
- Boyd, D. & Ellison, N. (2007). Social networking sites: definition, history and scholarship. *Journal of computer- mediated communication*, 13(1), 210-230.
- Brasel, A. (2012). How focused identities can help brands navigate a changing media landscape. *Business horizons*. 55, 283-291.
- Britt, S.H. (1966). *Consumer Behaviour and the Behavioral Sciences: Theories and Applications*. New York: John Wiley & Sons, Inc.
- Bruhn, M., Schoenmueller, V. & Schafer, B. (2012). Are social media replacing traditional media in terms of brand equity creation. *Management research review*, 35 (9), 770-790.
- Burshtein, S., Daniel, G., Turco, A., & Remtulla, T. (2010). Intellectual Property Businesses Must Recognize Trade-Mark Challenges as Web Communication Goes 2.0 Ways. *World Communications Regulation Report*, 5(10), 28.
- Campbell, R., Pound, P., Pope, C., Britten, N., Pill, R., Morgan, M., & Donovan, J. (2003). Evaluating meta-ethnography: synthesis of qualitative research on lay experiences of diabetes and diabetes care. *Social science and medicine*, 56, 671-684.
- Chalmers, D., Manley, D., & Wasserman, R. (Eds.). (2009). *Metametaphysics: new essays on the foundations of ontology*. Oxford University Press, USA.
- Chalmers, I., Hedges, L.,& Cooper, H. (2002). A brief history of research synthesis. *Evaluation and health professions*, 26, 238-143.
- Christodoulides, G. and Jevons, C (2011). The voice of the consumer speaks forcefully in brand identity: user generated content forces smart marketers to listen. *Journal of advertising research*, 51(1), 101-11.
- Chung, C., & Austria, K. (2010). Social media gratification and attitude toward social media marketing messages: a study of the effect of social media marketing message on online shopping value. *Proceedings of the Northeast Business & Economics Association*, 581-586.
- Cova, B., & Pace, S. (2006). Brand community of convenience products: new forms of customer empowerment—the case “my Nutella The Community”. *European Journal of Marketing*, 40(9/10), 1087-1105.
- Cova, B., & Cova, V.(2002). Tribal marketing: the tribalisation of society and its impact on the conduct of marketing. *European journal of marketing*, 36(5/6), 595-620.
- Cova, B., & White, T. (2010). Counter-brand and alter-brand communities: the impact of Web 2.0 on tribal marketing approaches. *Journal of Marketing management*. 26(3-4), 256-270.
- Constantinides, E. (2004). Influencing the online consumer’s behaviour: the Web experience. *Internet research*. 14 (2), 111-126. DOI: 10.1108/10662240410530835.
- Dann, S., & Dann, S. (2011) *E-marketing: theory and application*. Basingstoke, England : Palgrave Macmillan.
- Deighton, John (1996). The future of interactive marketing. *Harvard Business Review*, 74(6), 131-161.

- Deighton, John (2007), "Dove: Evolution of a Brand." Boston, MA: Harvard Business School Press.
- Deighton, J., & Kornfeld, L. (2008). Digital interactivity: unanticipated consequences for markets, marketing, and consumers. Harvard Business School
- Denzin, N. K., & Lincoln, Y. S. (2011). The sage handbook of qualitative research. 4ed. UK: Sage publications Ltd..
- Derry, S. J. (1999). A Fish called peer learning: Searching for common themes. In A. M. O'Donnell & A. King (Eds.)Cognitive perspectives on peer learning, 197-211. Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Dixon-Woods, M., Shaw, R., Agarwal, S., & Smith, J. (2004). The problem of appraising qualitative research. Quality and safety in healthcare. 13, 223-235.
- Dou, W., Lim, K. & Su, C.(2010). Brand positioning strategy using search engine marketing. MIS Quarterly. 34(2). 261-279.
- De Los Reyes, A., & Kazdin. A.(2008). When the evidence say, "Yes, No, and Maybe So":attending to and interpreting inconsistent finding among evidence-based interventions .Psychological science. 17(1), 47-51. doi: 10.1111/j.1467-8721.2008.00546.x.
- Divol, R., Edelman, D., and Sarrazin, H., 2012. Demystifying social media. McKinsey Quarterly (2), 66-77
- Dixon-Woods, M., Agarwal, S., Jones, D., Young, B., & Sutton, A. (2005). Synthesizing qualitative and quantitative evidence: a review of possible methods. Journal of health services research & policy, 10(1), 45-53B.
- Dobni, D & Zinkhan, G. (1990). In search of brand image: foundation analysis. Advance in consumer research. 17, 110.
- Egger, M., Davey-Smith, G. &Altman, D., eds (2001). Systematic reviews in health care: meta-analysis in context. London, England : BMJ Publishing
- Fournier, S., & Avery, J. (2011). The uninvited brand. Business Horizons, 54(3), 193-207
- Foux, G. (2006). Consumer generated media: get your customers involved. Brand strategy, 38-39.
- Fraser, M. & Dutta, S. (2008). Throwing sheep in the boardroom: how online social networking will transform your life, work and world. Chichester, England: Hoboken, NY: Wiley.
- Gill, G. & Bhattacharjee, A. (2009). Whom are we informing? Issues and recommendations for MIS research from an informing Sciences perspective. MIS Quarterly, 33 (2), 217-235.
- Greenhalgh, T. (1997), Papers that summarise other papers (systematic reviews and meta-analyses. British medical journal, 315 (7109), 672-675.
- Hammersley, M. (2001, September). Some questions about evidence-based practice in education. In symposium on" Evidence-based practice in education" at the Annual Conference of the British Educational Research Association, University of Leeds.
- Hammersley, M. (2002). Systematic or unsystematic: Is that the question? Some reflections on the science, art, and politics of reviewing research evidence. Public Health Evidence Steering Group of the Health Development Agency (www.hda.nhs.uk/evidence/sys_unsys_phesg_hammersley.html).
- Herzog, H. (1963), "Behavioral Science Concepts for Analyzing the Consumer." Marketing and the Behavioral Sciences, Perry Bliss, ed., (Boston: Allyn and Bacon, Inc.), 76-86.

- Higgins, J., & Green, S. (ed)(2006). *Cochrane Handbook for Systematic Reviews of Interventions*. Version 5.1.0 [updated March 2011]. The Cochrane Collaboration, 2011. Available from www.cochrane-handbook.org.
- Howard, J. (1989). *Buyer behavior in marketing strategy*. New York: Prentice Hall
- Kaplan, A. M., & Haenlein, M. (2009). The fairyland of Second Life: Virtual social worlds and how to use them. *Business Horizons*, 52(6), 563-572
- Keller, K. (1993). Conceptualizing, measuring and managing customer based brand equity. *Journal of marketing*. 57(1), 22
- Johnston, R. (2011). Social Media Strategy: Follow the 6 P's for successful outreach. *Alaska Business Monthly*, 27(12) 83-85.
- Jones, K. (2004). Mission drift in qualitative research, or moving toward a systematic review of qualitative studies, moving back to a more systematic narrative review. *The Qualitative Report*. 9(1), 95–112. Retrieved March 1, 2013, from www.nova.edu/ssss/QR/QR9-1/jones.pdf.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Business horizons*, 53(1), 59-68.
- Kim, J., Choi, J., Qualls, W. & Han, K. (2008). It takes a marketplace community to raise brand commitment: the role of online communities. *Journal of marketing management*, 24 (3-4), 409-431.
- Kim, A. & Ko, E. (2011). Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand. *Journal of business research*. 65, 1480-1486. DOI: 10.1016/j.jbusres.2011.10.014
- Laroche, M., Habibi, M. & Richard. M. (2012). To be or not to be in social media: how brand loyalty is affected by social media? *International journal of information management*.,33, 76-82
- Lee, D., Kim, H. S., & Kim, J.K., (2011). The Impact of Online Brand Community Type on Consumer's Community Engagement Behaviours: Consumer Created vs. Marketer-Created Online Brand Community in Online Social-Networking Web Sites. *Cyberpsychology, Behaviour and Social Networking*, 14 (1-2), 2011.
- Lincoln, Y. S., & Guba, E., G. (2000). Paradigmatic controversies, contradictions and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of Qualitative Research* (2nd ed., pp. 163-188). Thousand Oaks, CA: Sage Publications, Inc.
- Mangold, W., Faulds, D.(2009). Social media: the new hybrid element of the promotion mix. *Business Horizons*. 52 (1), 357-365
- Mays, N., Roberts, E., & Popay, J. (2001). Synthesising research evidence. *Studying the organisation and delivery of health services: Research methods*, 188-220.
- McAlexander, J., Schoulten, J., & Koenig, H. (2002). Building brand community. *Journal of marketing*, 66, 38-54.
- McMahon, M. (1997, December). Social Constructivism and the World Wide Web - A Paradigm for Learning. Paper presented at the ASCILITE conference. Perth, Australia.
- McWilliam, G (2000). Building stronger brands through online communities. *Sloan Management review*, 41(30), 43-54.
- Mulrow, C. & Cook, D. (1998). *Systematic reviews: synthesis of best evidence for health care decisions*. Philadelphia, USA: American College of physicians.
- Muniz Jr, A. M., & O'guinn, T. C. (2001). Brand community. *Journal of consumer research*, 27(4), 412-432.

- Nielsen, A. C. (2009). *Global Faces and Networked Places: A Nielsen Report on Social Networking's New Global Footprint*
- Oakley, A. (2002). Social science and evidence-based everything: the case of education. *Educational review*, 54, 277-286.
- O'Reilly, T. 2005. *Web 2.0: Compact Definition?* Retrieved December, 07, 2012 from <http://radar.oreilly.com/archives/2005/10/web-20-compact-definition.html>
- Parise, S., Guinan, P., & Weinberg, B. (2008). The secrets of marketing in a Web 2.0 world. *The Wall Street Journal*, 15.
- Preece, J. (2000). *Online communities: Designing usability and supporting sociability*. John Wiley & Sons, Inc..
- Reid, C. (2009). Should business embrace social networking? *Econtent*, 32(5), 34-39.
- Rheingold, H. (2000). *The virtual community: Homesteading on the electronic frontier*. Cambridge: MIT press.
- Richter, D., Riemer, K. Vom Brocke, J. (2011). Internet social networking: research state of the art and implications for Enterprise 2.0. *Wirtschaftsinformatik*. 53 (2), 89-103.
- Sandelowski, M., Docherty, S., & Emden, C. (1997). Qualitative metasynthesis: issues and techniques. *Research in Nursing and Health*, 20, 365-371.
- Shaver, D. (2003). Toward an analytical structure for evaluating the ethical content of decisions by advertising professionals. *Journal of Business Ethics*, 48(3), 291-300.
- Sheldon, R., Chalmers, I. (1994), "the Cockrane Centre and the NHS Center for reviews and Dissemination: respective roles within the information systems strategy and NHS R& D programme, coordination and principles underlying collaboration", *Health Economics*, 3, 201-203.
- Shau, J., Muniz, M., & Arnould, J. (2009). How brand community practices create value. *Journal of marketing*, 73(5), 30-51.
- Sheldon, T., & Chalmers I. (1994). The UK Cochrane Centre and the NHS Centre for reviews and dissemination: respective roles within the information systems strategy of the NHS R&D programme, coordination and principles underlying collaboration. *Health Economy*. 3(3), 201-203.
- Smithee, B. (2011), "How social media is expanding the definitions of MR, and as leaders why it is largely your responsibility" *Alert!* 51(3).
- Stokes, R. (2008). *E-marketing: The essential guide to online marketing*. South Africa: Quirk eMarketing (Pty) Ltd.
- Strike, K., & Posner, G. (1983). Types of syntheses and their criteria. In S. Ward & L. Reed (Eds.), *Knowledge Structure and their use*. Philadelphia: Temple University Press.
- Sukoco, B. & Wu, W. (2010). The personal and social motivation of customers' participation in brand community. *African journal of business management*. 4 (5), 614-622.
- Thorne, S., Jensen, L., Kearney MH., Noblit, G., Sandelowski, M. (2004) Qualitative meta-synthesis: reflections on methodological orientation and ideological agenda. *Qualitative health research*. 14 (10), 1342-1365
- Tranfield, D., Denyer, D. and Smart, P. (2003), "Towards a methodology for developing evidence-based management by means of systematic review. *British journal of Management*, 14, 207-22.
- Uzelac, E. (2011). *Mastering Social Media*. *Research*, 34(8), 44-47.

Veloutsou, C. & Moutinho, L. (2009). Brand relationships through brand reputation and brand tribalism. *Journal of business research*, 62 (3). 314-322.

Ward, J., & Ostrom, A. (2006). Complaining to the masses: the role of protest framing in customer-created complaint web sites. *Journal of consumer research*, 32 (2), 220-230

Weber, M(1978), *Economy and society*. Berkeley: University of California press

Wipperfurth, A.(2005). *Brand hijack: marketing without marketing*. New York: portfolio

Zarella, D., (2010). *The social media marketing book*. California: O'reilly Media Inc.

NON GOVERNMENTAL ORGANIZATIONS (NGOs) AND HOUSEHOLD FOOD SECURITY: EXPERIENCE FROM SOUTHERN ETHIOPIA

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ABSTRACT

Chronic household food insecurity has been one of the most critical development challenges in African countries including Ethiopia. The major causes of food insecurity are usually attributed to several internal and external forces that need to be understood at local and global context. In this regard, both local and global actors should enhance their partnership and collaboration for effective planning and implementation of food security initiatives. The purpose of this paper is to investigate the role of Non Governmental Organizations (NGOs) on household food security in Southern Ethiopia with reference to Kale Heywet Church Development Program (KHCDP). It can be argued that NGOs play an important role in the formulation and implementation of food security programmes and projects. The paper used both primary and secondary sources of information to analyze the level of household food security. Primary data collection methods such as household questionnaire, focus group discussion and key informant interviews were applied during the field work. The paper argued that KHCDP, an indigenous NGO in Ethiopia, has contributed to improve household food security in rural areas through promoting different strategic interventions. However, the paper also indicated that current interventions including access to agricultural inputs and technologies, water conservation techniques, agricultural extension and follow-up support need further consolidation. In addition, the paper highlights low levels of community participation and risks in long-term sustainability of food security initiatives. Therefore, it is vital to strengthen policies and practices with regard to partnership and extension services as well as support to small scale farmers in rural Southern Ethiopia.

INTRODUCTION

Food security and the ultimate reduction of poverty are the central issues of concern both at international and national level. At international level the Millennium Development Goal (MDG) targets to halve the proportion of people who suffer from poverty and hunger by 2015 (United Nations, 2000). Accordingly, governments of developing countries including Ethiopia have been committed to contribute towards achieving the MDGs within the given timeframe, 2015. However, food security and poverty reduction remains a huge challenge. For example in Ethiopia, it is estimated that twenty six million (about a quarter of population) live in the food deficit areas and they are suffering from hunger and malnutrition (Diao and Pratt, 2007). Research reports revealed that the country is food insecure (Stephen, 2000). There is a large food self-sufficiency gap at the national level and food insecurity at household level (EEA/EEPRI, 2004/05). According to the United Nations Human Development Report (UN, 2007/2008), 46% of the total population in Ethiopia is undernourished. The report further revealed that, under-nutrition contributes to the death of 58% of children under-five in the country. Moreover, 38% of children under-five are under weight and 51% is stunted. This paper, therefore, identifies household food insecurity as a key problem.

The emphasis is on investigating the contribution by the Kale Heywet Church Development Programme (KHCDP) in its role as indigenous NGO. This study in particular considered the effectiveness of strategies that have been employed to alleviate household food insecurity in the rural areas of Southern Ethiopia. As an indigenous NGO, the KHCDP has been supporting the developmental aspirations of the local community and initiating integrated local programmes for more than thirty years (Dalelo, 2003). However, the effort that has been made with regard to household food security was not adequately documented. This paper serves as an attempt to bridge the gap through focusing on strategies and approaches towards household food security. This approach is of importance as the findings will contribute to the debate concerning household food security interventions in the country.

LITERATURE REVIEW

Food security is defined and interpreted in different ways by different authors and institutions depending on the level of analysis and interpretations. The World Bank (1986) defines food security as access of all people at all times to enough food to have an active, healthy life. The definition of World Bank stressed on the accessibility or entitlement through increasing the purchasing power of people rather than increasing availability. Similarly, FAO of the United Nations (1996) defined food security conditions as 'when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life'. The definition by FAO is broad and encompasses various elements of food security such as availability at all times, accessibility by all people, nutritious especially quality and quantity, and food preference depending on culture and traditions of people. According to FAO (2000), food security depends on availability of food, access to food, and utilization of food. These are key elements that form pillars of food security.

NGOs play crucial role in development process, especially in food security. They generally pursue activities to relieve suffering, promote interest of the poor, protect the environment, provide basic social services, or undertake community development (World Bank, 1989). In similar way De Beer and Swanepoel (2000) described NGOs as autonomous, privately set up, non-profit making institutions that support, manage or facilitate development actions. There are different views regarding the role of NGOs in development. Proponents of NGOs argue about the significance of NGOs in development. According to Behera (2006), NGOs have unique characteristics such as knowledge about local people, operate with greater flexibility, work in inaccessible areas, cost-effective, and adopt appropriate development inputs. He further explained that NGOs also have some inherent weaknesses; limited financial and management experiences; low levels of self sustainability; limited institutional capacity; lack of inter-organizational coordination; and small scale interventions.

Internationally, the role of NGOs on food security has been recognized and the need to strengthen civil society is widely acceptable. In his essay, Baily (2007) shows how NGOs have responded to food security. According to Baily, NGOs response comprises increasing of rights based approach and participatory approaches to food security. Windfuhr (cited in Baily, 2007) clarified that NGOs focus on economic, social and cultural rights such as protecting small farmers from eviction, indigenous people from losing traditional land and fishing grounds, and segment of the population from discriminatory food supply schemes. He further explained that NGOs are developing nutritional rights, as opposed to rights to adequate food, to put pressure on governments to take responsibilities for supplying funding for nutrition in national budget. Howell (cited in Baily, 2007) also explained a participatory approach of NGOs in responding to food security by illustrating an Ethiopian case of Action Aid in promoting sustainable and community solution to food production. According to UN's Department of Economic and Social Affairs (2008), NGOs are collaborating with research institutions and government institutions in Ethiopia, Sudan, Mali, and Eritrea within the Dry land Coordination Group (DCG) in order to share experience and knowledge, and thus build capacity on agriculture and food security in the dry lands through the networks within and between these countries.

In Ethiopia, research shows that NGOs have been contributing towards promoting a wide range of development activities. One of these studies is a research conducted by Dejene (2004) on the contribution of NGOs to household food security. The study indicated that NGOs do play a significant role in improving the quality of life among the poor. Activities included soil conservation and reforestations, improved physical infrastructures and improved health and education infrastructure. These interventions have impacted on areas including livelihood security, improved water supply and other amenities and the introduction of cash crops. Belshaw and Coyle (2001) assessed the impacts of poverty reducing projects selected from different parts of the country. The study revealed that NGOs have significantly contributed to poverty alleviation in both urban and rural areas of the country through applying innovative approaches. Dagneu *et al.*, (2002) found that NGOs have been involved in facilitating accessibility of food to the urban and rural poor through income generation schemes such as, development of micro-enterprises and skills upgrading and vocational training. The research further reported that a significant number of NGOs are involved in improving the nutritional status of rural and urban communities through integrated health programmes, health education, family and nutritional education, access to clean drinking water and sanitation and family planning. According to the study, impacts of development projects lack sustainability, partially due to the kind of intervention approach followed by NGOs.

RESEARCH PROBLEM

The research problem is to emphasize the role of NGOs in the course of fighting against food insecurity in Southern Ethiopia. The research basically focused on investigating the roles played by the KHCDP, particularly the effectiveness of strategies that have been employed to alleviate household food insecurity in the rural areas. As an indigenous NGO, the KHCDP has been supporting the developmental needs of the local community and initiating integrated local development programmes and projects for more than three decades. However, the effort that has been made with regard to household food security was not adequately researched and documented. Prior to this, most studies on household food security in Ethiopia have focused on identifying the causes of food insecurity or impacts of the programmes. Hence, this research is believed to bridge the gap through focusing on strategies and approaches towards household food security. It is impossible to contribute to improving food security without effective approaches in which the complex local situations are addressed.

RESEARCH OBJECTIVES

The aim of this research is to assess the role of the Kale Heywet Church Development Program (KHCDP) on household food security in the rural areas of Southern Ethiopia. The specific objectives of the study are, namely, to:

- Investigate the effectiveness of the Kale Heywet Church Development Program (KHCDP) strategies towards household food security in the Kucha District;
- Assess the perception of community on the Kale Heywet Church Development Program (KHCDP) food security interventions in the Kucha District.

RESEARCH METHODOLOGY

An attempt was made to assess the effective implementation of KHCDP strategies towards household food security in two peasant associations. Mixed techniques, which includes qualitative and quantitative methods was considered in this paper. More specifically, existing documents were examined to review theoretical aspect of household food security and primary data was collected from the field using household questionnaire, interview and focus group techniques.

A household questionnaire was administered to 119 heads of household and face to face interview was done to collect quantitative data from respondents who were mainly subsistence farmers. Additionally, six focus groups and about 10 key informants were involved in the process of collecting qualitative information. The data analysis involved accurate field notes that were recorded throughout the fieldwork stage. The filled in questionnaire was edited for quality and completeness. The raw data were coded, processed and presented in the form of written textual quotes, diagrams, graphs and tables.

FINDINGS

The development work of the Ethiopian Kale Heywet Church is geared towards full human development in a holistic approach. According to Dalelo (2003), the Development Department of the Ethiopian Kale Heywet Church was established in 1984 to integrate all development activities in systematic ways. Since its establishment, KHCDP has been engaged in relief, rehabilitation and integrated rural development programmes, mainly in southern part of the country where the church has its stronghold. The KHCDP development activity has gradually shifted from relief and rehabilitation towards more integrated food security approach. This paper presents the empirical findings in the following sub-categories: provision of farm inputs and technologies; soil conservation methods; water resource utilization methods; training and extension services; participation; and sustainability.

Farm Inputs and Technologies

The results indicated that the KHCDP has introduced and distributed some farm inputs and technologies. The majority of the sampled households (65%) reported that they were able to receive some kinds of improved agricultural inputs. Seeds and seedlings were the dominant types of farm inputs adopted by

farmers. Less adopted farm inputs include equipments, chemical sprays and fertilizers. Of those adopted inputs and technologies, 50% provided with seed, 49% received seedlings, 10% received farm equipments, and only 6% used chemical fertilizers. Additionally, a considerable proportion (8%) reported adoption of beehives and local goats. However, the findings also reveal that a large proportion of households (41%) reported great dissatisfaction in relation to access whereas a considerable proportion (28%) indicated that they were somewhat satisfied. The major reasons behind dissatisfaction with access to farm inputs were inadequate supply (25%), unaffordable (17%), and delayed supply (15%).

The KHCDP introduced and distributed farm inputs and technologies with a view to increase food production and incomes. The KHCDP also played a significant role in increasing access to farm inputs, such as fruits and seeds. However, the distribution of farm inputs was inadequate in terms of quantities and coverage. There was shortage of supplies to address demand by beneficiaries at large and individual household were provided with insufficient amount of inputs for farming activities. What is more, the poor households were unable to afford the costs for inputs such as quality seeds and fertilizers. The finding is supported by other researchers (Dagneu et al., 2007; Behera, 2006) who indicated that NGOs the limited scale of operation of NGOs affect their effectiveness in terms of addressing the needs of poor donors, private sectors and government agencies to increase access to improved inputs and technologies by households for boosting their agricultural production and food availability.

Soil Conservation

The finding shows that the KHCDP has promoted soil conservation measures at household level. Most households exercise terracing such as soil, stone bands, and check dams. Generally, 69% of the sampled households practice terracing while 34% plant trees. Furthermore, 31% practice various cultural methods including mulching.

Soil conservation measures were widely adopted and practiced by households to improve soil fertility so as to increase food production. At household level such measures comprised terracing, tree planting and cultural methods, whereas at community level area closure is an example of conservation methods. On the other hand, there is dissatisfaction due to insufficient back-up supports with equipments and technical advices. As a result, the practice of soil conservation is declining at household level. This finding is supported by Shiferaw *et al.* (2003) that interventions related to household food security should give emphasis to improving soil fertility. Such soil conservation activities should promote farmers capacity through upgrading their skills and providing them with relevant equipments to reduce soil degradation. It entails that NGOs must make sure that there is adequate access to soil conservation equipments by poor households. NGOs should play a vital role in revitalizing soil conservation practices in order to improve food production.

Water Resource Utilization

The findings reveal that the KHCDP has played insignificant role in promoting improved water resource utilization for increasing food availability at household level. The majority of sampled households (84%) were not practicing improved water utilization methods. However, only a few (16%) of households use shallow wells, rain water harvest, and irrigation to produce crops. In answer to questions regarding the type of crops produced by households through improved water-utilization techniques, the results revealed that roots, vegetables, and fruits are the dominant crops.

Improved water resource utilization technique was not promoted properly to address the scarcity of water to produce adequate food at household level. An irrigation scheme was underutilized and roof- water harvesting technology is just at demonstration level. The main reasons were, namely, weak collaboration between government and the KHCDP, inadequate extension support, and poor performance of the water committee. According to UN's Department of Economic and Social Affairs (2008), NGOs should collaborating with research institutions and government institutions in order to share experience and knowledge, and thus build capacity on agriculture and food security in the dry lands .

Training and Extension

The results indicate that the KHCDP has contributed towards increasing awareness of households on food production and food utilization methods. A considerable proportion of households (39%) reported that it

was exposed to awareness creations on various training topics such as vegetable and fruit production, improved crop production, soil conservations, family planning, home care, food processing, beekeeping, and goat management. Most households were trained on three topics such as crop production, soil conservation, vegetable and fruit production. The finding also revealed that majority of sampled households was exposed to experience sharing visits. Figure 4 shows that 42% involved in farmers to farmers visits, as well as 42% who participated in visiting demonstration centers.

Training and extension services have increased households awareness of food production and utilization. Their capacity was built on improved agronomic practices, food preparation and sanitations. In addition, exposure to experience- sharing visits and demonstrations on improved technologies benefited households to familiarize themselves with new varieties. However, to improve delivery of training and extension services, KHCDP should consider the following issues: selection of trainees; follow up and technical advice; number of participants; duration of the course; refresher courses; and formation of small self-help groups. However concerning the application of lessons through training and extension services, majority of the sampled households reported that they failed to put into practice what they learned in the process. According to the study, only 31% of the trained households have applied lessons to improve household food security status.

Regarding follow up visits by extension workers of KHCDP, majority of sampled households reported that it was unsatisfactory. According to the study, 68% of the households were not visited by the project extension workers. However, only 18% reported that they received monthly visits. In addition, the opinion of focus group members was assessed on problems related to training and extension services. Thus the majority of the focus groups reported that the main constraints were poor selection of trainees, weak follow up of training events, low level of participation, short duration, and lack of refresher courses.

Participation

The majority of poor households were not involved in food security interventions. However, in some activities such as credit in-kind and soil conservation poor households were included. The beneficiaries selected for demonstrations of improved crops and trainings were model farmers. In the community based activities, particularly soil conservation on communal land, public sense of ownership in the project was increased. Community participation was also limited to giving feedbacks to visitors and external evaluators. The finding shows that community lacks of genuine interest to participate in project activities without incentive.

Public activities on communal land have had good participation of community members. There was, however, poor involvement of households in the planning and evaluation of food security interventions. Poor households had limited opportunity in identifying needs, formulating strategies, and sharing the benefits from the interventions. Though there is belief that NGOs are close to the community, the finding shows that there is still a lot to be done to improve participation of community in food security interventions. The problem could be attributed to NGOs limited institutional and management experiences (Behera, 2006). Hence, beyond the common belief that NGOs are in close contact to the community, attention should be given to improve participation of community in food security planning and implementation.

Sustainability

Respondents from among the key informants stated that the sustainability of food security intervention is questionable when it comes to long term benefits. The constraints identified are, namely; low level of participation, dependency on foreign aid, lack of policy on KHCDP food security programme, and poor extension approach.

The interventions related to training, fruit production, soil conservation and credit in-kind seem to have short-term sustainability. Overall, the long term sustainability of food security intervention depends on several determining factors. These include the following: access to inputs; collaborations of partners; extension approach; local resource mobilization; and implementation of comprehensive policies and strategies at the KHCDP level. Literature indicates that the impacts of development projects by NGOs lack sustainability partly due to limitations in interventions followed NGOs (Dagneu *et al.*, 2002). The implication is that consideration should be given to long-term sustainability of food security interventions.

CONCLUSION

KHCDP had contributed to the improvement of household food security in most vulnerable areas through improving the productivity of small farms and increasing the incomes of poor households. However, the paper also indicated that the current interventions including access to agricultural inputs and technologies, water conservation techniques, agricultural extension and follow-up support need further consolidation. In addition, the paper shows low level of participation and risks in long-term sustainability of food security initiatives. Therefore, it is vital to strengthen policies and practices with regard to strengthening partnership and extension services as well as support to small scale farmers in rural Southern Ethiopia.

REFERENCES

- Baily, C. 2007. Food security and the role of NGOs. <http://www.e-ir.info/?p=158> accessed on 07-05-2013.
- Behera, M.C.2006. Globalizing Rural Development: Competing Paradigms and Emerging Realities. New Delhi: Sage.
- Belshaw, D., & Coyle, E. 2001. Poverty reduction in Ethiopia and the role of NGOs : Report of consultancy assignment carried out by Overseas Development Institute. Addis Ababa : CRDA.
- Dagneu, E., Alemayehu, G., et al. 2002. Food Security, Sustainable Agriculture and Trade: Issues of Concern for Lobbying and Advocacy for CRDA by IDCoF. Addis Ababa.
- Dagneu, E., Emiru, S., Mulumebet, Z., & Rahwa, M. 2007. Evaluation report on IRDPs and the Arbaminch training center for home economics. Consultancy report submitted to Kale Heywet Church. Addis Ababa.
- Dalelo, A. 2003. The church and socio-economic transformation. Addis Ababa, Ethiopia : Kale Heywet Church Development Program
- De Beer, F., & Swanepoel, H. 2000. Introduction to development studies (2nd Ed). Oxford University Press Southern Africa.
- Dejene, A. 2004. Contributions of NGOs to household food security: The case of three area development programs of World Vision Ethiopia in the Amhara Regional State. Addis Ababa.
- Diao, X. & Pratt, A.N. 2007. Growth option and poverty reduction in Ethiopia- An economy-wide model analysis. *Food Policy*, 32 : 205-228.
- EEA/EEPRI. 2005. Report on the Ethiopian economy. Addis Ababa : Ethiopian Economic Association.
- FAO.1996. Rome declaration on world food security and world food. Rome: World Food Summit.
- FAO. 2000. Guidelines for national FIVIMS: Background and principles. Rome: Food and Agriculture Organization.
- Federal Democratic Republic of Ethiopia. 1996. Food Security Strategy. Addis Ababa.
- Shiferaw, F., Kilmer, R., & Galdwin, C. 2003. Determinants of food security in southern Ethiopia. University of Florida.
- Stephen, D. 2000. Food insecurity in Ethiopia. A discussion paper for DFID. Sussex: Institute of Development Studies.
- United Nations. (2000). Millennium Development Goals (MDGs). <http://www.un.org/millenniumgoals> accessed on 07-05-2013.
- United Nations. 2007/2008. Human Development Report. http://un.org/en/reports/global/hdr_2007-2008 accessed on 07-05-2013.

United Nations Department of Economic and Social Affairs. 2008. Contributions by NGOs major group sector on Africa and sustainable development. Background paper No 3. New York: Commission on Sustainable Development.

World Bank. 1986. Poverty and hunger: Issues and options for food Security in developing countries. Washington DC: World Bank.

World Bank. 1989. Mozambique food security study. Washington D.C.: World Bank.

THE IMPACT OF CUSTOMER SATISFACTION ON THE EVOLUTION OF THE NIGERIAN AIRLINE INDUSTRY

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ABSTRACT

Customer satisfaction is a very important concept that various organisations, especially those in the services industries, must continuously augment if they are to remain relevant in today's extremely competitive market. The competitiveness of modern day business environments requires a sustainable strategy that delivers superior competitive advantage and this grid lies in satisfying the customers. Therefore, this study aims to evaluate customer satisfaction levels in developing countries with specific emphasis on the Nigerian airline industry. The choice of airline industry offers, we suggest, appropriate dimensions for this analysis based on two primary reasons. First, it provides deeper insights into one of the largest and untapped markets in the Sub Saharan Africa. Second, it highlights the level of service provisions and offers some effective marketing strategies for improvement. Our overall aim is to develop a more inclusive understanding on the Nigerian airline industry, and to offer some insights into the level of customer satisfaction within the industry.

INTRODUCTION

Customer satisfaction is a broad description and can be achieved in varying degrees or forms depending on different individual standards (Gilmore, 2003; Lovelock et al., 2009; Godson 2009). Parker and Mathews (2001 p. 38) espouse that, "for over three decades the word satisfaction has been a fundamental concept in marketing. The word has its origins in the Latin, *satis* meaning 'enough' and 'faction', (from the Latin '*faerce*' -to do/make), thus, the most common interpretation connotes satisfaction being a feeling that results from evaluating what was received against what was expected, the purchase decision itself and/or the fulfilment of needs or wants. Further, Jajae and Ahmad (2012) explain that customer satisfaction is one of the main areas of interest in marketing, business and the academic world. However, opinions vary in terms of whether achieving customer satisfaction automatically translates into customer retention, repeat purchases, loyalty or increased profit. The term 'customer satisfaction' in theory and practice has attracted much attention and debate continues around the extent to which customer satisfaction is integral for success in an extremely competitive environment such as the airline industry.

THEORETICAL FRAMEWORKS

Customer satisfaction has been defined differently by various authors. The most widely adopted description of customer satisfaction is "of a process; an evaluation between what was received and what was expected" (Parker and Mathews, 2001). Ehigie, (2006, p. 497), stated that, "customer satisfaction is believed to be influenced by some other variables, which include service quality, perceptions and expectations". Also, Angelova and Zekiri, (2011, p.233) asserted that "customer satisfaction is an overall customer attitude towards a service provider, or an emotional reaction to the difference between what customers anticipate and what they receive, regarding the fulfilment of some needs, goals or desire". Other authors define customer satisfaction as a prerequisite for customer retention, loyalty and profitability. For example, Stauss and Neuhaus, (1996, p. 236) suggest that "customer satisfaction is considered as a necessary condition for customer retention and loyalty and therefore helps in realising economic goals like turnover and revenue".

Nevertheless other authors disagree with this view and insist that there is no concrete evidence to support any remarkable relationship between satisfaction and profitability (Omachonu et al., 2005; Ehigie, 2006; Jham and Khan 2009).

In what can clearly be described as contextual definitions, other authors suggest qualities such as “friendly employees, knowledgeable employees, helpful employees, accuracy of billing, billing timeliness, competitive pricing, good value, billing clarity and quick service” count as key factors that lead to satisfaction (Angelova and Zekiri, 2011, p.234). Another similar definition suggests that basic services such as; prompt arrival and departure of flights, proper hygiene standards are maintained in-flight, appropriate refreshments and entertainment are provided, friendly front-line staff, fast and reliable customer-related services and prompt response services are the service qualities that airline customers are keen on (Meyer and Mostert, 2010). This perspective captures part of the focus of this research and as Anderson and Fornell, (1994) suggest, the best way to resolve the never ending argument among critics as to how satisfaction (an attribute that is intangible) or feelings should be defined easily in certain contexts. Also as Ringle et al. (2011) assert, the significance of customer satisfaction can only be relevant within the “service-oriented industry when customer views are considered relevant. Indeed, these definitions capture some of the most important service aspects within airline operations that customers would naturally expect. Customers increasingly expect and demand high levels of service quality and this poses as a challenge in terms of designing strategies that match customer needs that are imperative for most businesses to survive in a highly competitive business environment (Jobber, 2004). Another definition describes customer satisfaction as a “...multidimensional construct which has been conceptualised as a prerequisite for building relationships” (Jham and Khan, 2009, p.110). It has arguably become paramount for organisations to create and establish a cordial bond with customers. Indirectly, it initiates an on-going link between provider and customer that helps businesses understand each individual customer better leading to a competitive edge over your competitors. Despite these resounding attributes of customer satisfaction, some authors argue its acclaimed importance to marketing management and insist that customer satisfaction and service quality are mere concepts that stop short of supporting a concrete justification for their viability (Sureshchander et al., 2002). Based on this review of extant literature, this research intends to examine in more detail several marketing concepts enshrined within customer satisfaction.

NIGERIAN AVIATION INDUSTRY: YESTERYEARS GIANT

Civil aviation in Nigeria dates as far back as 1925 in the ancient city of Kano. There are presently four international airports and eighteen domestic airports. Of these, seven are ranked as major domestic airports. The Nigerian airline industry has experienced rapid growth in recent years with the potential to achieve even more with the right kind of investment and infrastructure. Currently there are about eleven domestic and twenty eight international airline operators in Nigeria. However, only a handful of those domestic operators are active operations at the moment. Eze (2013), in an interview with the CEO of British Airways indicated doubts about potential investments in the market due to the absence of a national carrier that once existed (Nigerian Airways). However, the CEO expressed optimism over the African market which is developing and holds the ace for massive growth. In 2009, an estimated two hundred and twenty one million, two seventy thousand passengers culminated in 15% growth for the aviation industry in terms of aircraft movement. Over seven million passengers were recorded from both international and domestic air travel in 2011. These phenomenal statistics reveal the underlying potential of the industry.

Presently, the Nigerian airline industry is undergoing significant changes defined by increased numbers of international carriers and destinations leading to fiercer competition among both domestic and international players. Although, safety records are not as strong as they might, and the history of air crashes over the last twenty years has been alarming. A total of ten accidents are recorded averaging one crash every two years. Further, “this situation has put African aviation safety back into the spotlight, although IATA claims the rate of hull losses per million sectors flown improved to 6.17% in 2011 from 15.68% the previous year at a summit a five-point action plan was drawn up for the region”(Frankfurt, 2012). The role of the International Aviation Transport Authority in formulating regulations that protect customer safety has not been too successful in the Nigerian context. Customers need to be assured of safety. Following these disasters, domestic airline operators have been given an ultimatum by the Nigerian Civil Aviation Authority to install an Automated Flight Information Reporting Device (AFIRS); the newest safety device in the aviation sector. This technology is a safety device that automatically records mistakes that pilots make within a period of six months. Failure to engage with this technology can mean airlines face sanctions

(Adekola, 2012). Further, British Airways, an international air carrier that has served Nigeria for seventy six years, have pledged their commitment to support the Nigerian government to ensure the transformation agenda in the aviation sector succeeds having identified huge potentials that abound in both the international and domestic markets (Leadership News, 2012). According to Eze, (2012), in the first half of the year, the Nigeria Air Space Management, (NAMA), announced that aircraft movements within Nigeria's airspace has increased by 12.8% with an estimate of five hundred aircraft passing through daily. This is achievable as a result of the newly upgraded Total Radar Coverage of Nigeria (TRACON) indicating the massive potential the airline industry can generate for the economy.

Indeed, the service industry is a unique phenomenon in the national development of a country. Since the 1980's the service industry has developed into an extremely important element in the development of many countries especially in both developing and advanced countries (Natalisa and Subroto, 2003). With the aid of technological innovations, the airline industry must also evolve to tap into the rapid growth that has been seen in developing economies. The Nigerian airline industry must therefore, decisively invest in superior facilities, human capital and aircraft technology.

DOES CUSTOMER LOYALTY REALLY EXIST?

Customer loyalty connotes a customer's commitment or faithfulness to an organisation or a brand. With the present competitiveness in the service industry, customer loyalty plays an important role and in most cases can only be earned. While some authors define customer loyalty in terms of repeat purchase and profitability, (Zeithaml, 2000; Dick and Basu, 1994) others are wary of differentiating between customer loyalty and customer loyalty programmes as extant research posits that the latter may increase loyalty toward the programme than loyalty toward the company, (Evanschitsky et al., 2012; Yi and Jeon 2003). Stauss and Nehaus (1996) also argued that, the measurement scale used in evaluating customer satisfaction poses doubts as, often, positive customer responses do not necessarily translate to loyalty. Further, Olajide and Israel (2012, p.230), opine that, "customer satisfaction is not necessarily a guarantee of customer loyalty. They maintain that in certain industries up to 75% of customers who switch providers say that they were 'satisfied' or even 'very satisfied' with previous providers, however, "40% of satisfied customers defect to other suppliers". Thus, it becomes pertinent that these two concepts are in no way misinterpreted. The challenge exists in a severe competitive environment an organisation should not be misled with their business outcome when in real terms loyalty programmes are meant for a short period and susceptible to being imitated (Evanschitsky et al., 2012).

The benefits of customer retention in marketing and operational management continually take a high pedestal. According to Nitzan and Libai (2011, p.24), "over the past two decades, practitioners and academics have paid considerable attention to customer retention and to its antecedents and consequences primarily because of the impact of retention on customer lifetime value and consequently the firm's bottom line". There is also the famous Pareto rule also known as the 80-20 rule which says 80% of an organisation's patronage is generated from only 20% of its baseline. This means that acquiring new customers comes at a higher cost than retaining existing ones. Reicheld and Scheffer (2000) asserted that, it costs between 20-40% more to acquire new customers. Nevertheless, there has been an on-going debate over the plausibility between retention and profitability. Other authors argue that retaining some customers might be costly in the long run (Angelova and Zekiri, 2011). Most researchers however, agree as to the importance of retention as it no doubt leads to greater profitability (Gupta et al., 2006; Nitzan and Libai, 2011). In another fusion of concepts, Angelova and Zekiri, (2011, p. 232) asserted that, "satisfied customers form the foundation of any successful business as customer satisfaction leads to repeat purchase brand loyalty and positive word of mouth". There exists an inter-related connectivity between these concepts as the resultant effect of one could lead to another.

EFFECTIVE AND CONSISTENT OF CUSTOMER SATISFACTION

The existing literature clearly indicates that several factors are enshrined with the concept of customer satisfaction. From similar studies conducted, marketing concepts like; relationship marketing, customer relationship management and service quality were always identified as having a direct relationship with customer satisfaction. Humanity has thrived on various forms of relationships and for whatever reason a relationship is formed, the tenets should be guarded if that relationship is to last the test of time. Ndujisi

(2007, p.98), argues that “there is undoubtedly a growing interest in the subject of relationship marketing. The strong rivalry characterising today’s business environment has led to the building of stronger firm-customer relationships”, thus, in all marketing relationships, the core assumptions and principles remain the same: the need for trust and commitment and to address issues of risk, flexibility, power and return on relational investment, (Ward and Dagger, 2006). Further, Jham and Khan (2009, p.111), asserted that, relationship marketing aims at increasing customer profitability while providing better services for customers. In recent times, most organisations have realised the importance co-creating, nurturing and maintaining relationships with customers due to increased competitiveness in the marketing environment. So much now depends on how an organisation is able to establish and sustain strong links with its customers. Nevertheless, there remains no universally accepted definition of relationship marketing. There has been an on-going debate among academics and practitioners to decide how to define relationship marketing, who should be included and even when a relationship may exist between relevant parties (Harwood and Garry, 2006).

Another definition relates relationship marketing to customer loyalty. Relationship marketing forms the basis for trust, commitment, communication and conflict handling whose influence comes as a result of customer loyalty, Ndubisi (2007). Consequently, a long-standing relationship could afford an organisation the leverage of assured patronage due to the intimate bond they have been able to build. Further, Zineldin and Philipson (2007) stated that, relationship marketing focuses on how to develop, maintain and enhance customer relationships over the customer cycle rather than on attracting new customers. Repeat business is the lifeblood of any business. Indeed, the ulterior motive of a relationship is to ensure sustenance which precipitates growth. Further, Zineldin and Philipson (2007) stated that the purpose of business is to create and keep customers; it has only two central functions- marketing and innovation. The basic function of marketing is to attract and retain customers at a profit which means an on-going relationship may, for example, offer the customer security, a feeling of control and a sense of trust along with minimised purchasing risks and, in the final analysis, reduced costs of being a customer, (Gronroos, 2004). In other words, relationship marketing strives to create not only a bond with customers but to offer the advantages of retaining existing customers which far outweighs the cost of attracting new ones.

Nevertheless, some authors disagree with the concept of relationship marketing. For instance Williams (2007) identified certain flaws that are easily misconstrued in relationship marketing. Customers might not be interested in developing a deeper relationship which could be a turn-off. The mere fact that customers are satisfied does not guarantee grounds for a relationship and there is a misconception that necessity translates to loyalty. Also, Gronroos (2007) suggested that the term ‘marketing’ should be replaced in the concept of relationship marketing as historically the term was used to describe transactional exchanges which some authors find “unnecessary” and even “heretic” in some quarters. In other words, relationship marketing might not necessarily be beneficial worthy as the case might be, thus, organisations must carefully sift through their customer base to unravel the basis that best defines their relationship and how best this relationship can be sustained.

DIMENSIONS FOR CUSTOMER RELATIONSHIP MANAGEMENT

The term Customer Relationship Management (CRM) was first introduced by Levitt in the late 1960’s to emphasise the importance of creating relationships with customers and to acknowledge the fact that the evolution of relationship marketing is directly linked with evolution in the business environment (Mendoza et al., 2007). Payne and Frow (2006, p.137) suggest that, “though the term CRM is relatively new, the principles behind it are not”, which has equally developed into a very important aspect in marketing that has been given so much attention in recent times. It is based on the principles of relationship marketing which is regarded as one of the key developmental areas of modern marketing and one which has generated great research interest. There is no doubt that so much attention and strategies are continuously designed to reflect the manner by which customer relations are managed. Sheth (2002) argued that relationship marketing has gradually evolved into what is now customer relationship management marked by a shift in market focus from customer acquisition to customer retention. Customer relationship management has therefore become a popular and new paradigm. Similarly, Parvatiyar and Sheth (2001) observe that CRM is a comprehensive strategy and process of acquiring, retaining and making selective customers partners so as to create a superior and unique value for both the company and the customer. This ability to manage customer relations thus, in a way creates superior advantages when customers feel appreciated and valuable to an organisation.

In a more recent study, Rust and Huang (2012), observe that, automation has played a significant role substituting for labour to increase service productivity. Nevertheless, automated telephone services have replaced the presence of a human representative and although cost effective for most organisations, this could lead to huge losses due to the intricacies or steps described as a “runners-up for daily irritations in people’s lives”. In addition, Accenture, (2005) reported that despite the increased use of new technologies intended to improve customer service, such as automated telephone systems, poor customer service attributes for customers switch off service providers, also, “this type of trade-off is typical in the service world” (Rust and Huang, 2012, p.47). In other words replacing the human representative can lead to lower productivity which is a cost to any organisation. This situation has become a dilemma for most executives and organisations because decisions must be taken to save costs and maximising production while retaining a customer relationship at the same time.

Despite these views, critics are of the opinion that CRM practices have not been rewarding in terms of returns. In a survey conducted by Frosyth using a sample of about 700 companies the main causes of failure were identified as organisational change, company policies/inertia, lack of understanding of CRM and poor CRM skills (Mendoza et al., 2007). Equally, Ebner et al. (2002) suggest that CRM practises are often misconstrued as meaning any IT technology software which has evidently led to failure in implementation. Indeed, not every software system that is successful is suitable for every business. In such cases, organisations must design systems that are in harmony with their processes. Also, Bain (2001 cited in Rigby et al. 2002), stated that customer relationship management ranked amongst the bottom three aspects for satisfaction and “a Forrester research conducted in 2006 shows that only “10% of businesses and information technology executives surveyed strongly agreed that expected business results are achieved from implementing customer relationship management strategies” (Bena and Sandru Iona, 2009). Although the outcome of such critiques has been discouraging, it has not in any way deterred heavy investments to initiate CRM strategies and programmes with the confidence that keeping current customers, as well as the inevitability of building long-term relationships with customers instead of the customer-oriented transaction method in order to augment the profitability of the institutions, especially in today’s increasingly competitive economy (Soliman 2011). Therefore, it is only logical that before an organisation implements any CRM strategy they must ensure that it integrates seamlessly without interfering with their original template.

IS THERE ANY NEED FOR SERVICE QUALITY MEASUREMENT?

Most organisations within the service industry are beginning to fathom a secret that their counterparts in the manufacturing industry discovered in the 1980s- “that quality doesn’t improve unless you measure it” (Reicheld and Sasser, 1990, p.105). A very common tool used in the measurement of customer satisfaction is the SERVQUAL model. The intangibility of service makes it rather complex to define and more so difficult to measure, “a consistent issue in managing service quality” and the ability to identify what is synonymous between a service offered to what the customers expect (Chau and Kao, 2009, p.108). In 1988 Parasuraman, Zeithaml and Berry, in an attempt to create a means of measurement developed what was known as the SERVQUAL model. Their ulterior aim was to assess the gap between customer expectations and performance from service experiences or product usage. Indeed, service is crucial in marketing and could easily be a point of differentiation when there is high intensity in competition.

The SERVQUAL model has since been scrutinised. Buttle (1994) argues that, the model falls short both theoretically and operationally, thus in relation to the former it is based on a disconfirmation rather than an attitudinal paradigm and there is insufficient evidence to support that customer assessments of service are based on performance and expectations gaps. Service delivery should be measured based on the outcome and not the process and lastly the five dimensions of reliability, assurance, tangibles, empathy and responsiveness do not suggest a comprehensive list for a detailed service evaluation. While the latter emphasises that customer expectations as they relates to service quality have more to do with standards rather than mere expectations and customer assessments will also vary depending on the outcome of events; “the reversed polarity on the scale causes respondent error”. Depending on the intellectual capacity of respondents sometimes the reversed polarity can be difficult to comprehend. The argument still continues as to the extent to which the model was originally designed to measure perceived service quality but inevitably measures customer satisfaction (Oliver 2010, Mittal et al. 1998).

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

The sheer neglect on the path of the Nigerian airline industry to invest in professional training programmes for their staff is the bane of their failure in providing quality service. The nature of the service industry is such that there is a constant exchange with different calibres of people from all walks of life. It becomes paramount that only professionals who understand the complexities of dealing with people are assigned the responsibility to manage such positions. Further, it does not end with just training so there must also be continuous development, close supervision and reviews of staff and customer skills at all levels for relationships between customers and airline staff to suffice. The aspect of training has been established to be fundamentally absent, which explains why the staff act in a manner that is provocative to customers. Unless a customer is absolutely irrational the demeanour and expertise by which a well-trained staff member will handle situations in times of crisis will, to a certain level, mitigate any impending escalation of events or flared tempers. Customers are an invaluable asset for the survival of the airline industry which is why they must, as a matter of immediacy, reorganise their training programmes to ensure that those at the forefront are seasoned professionals.

It is very important to effectively communicate important information across to customers. Thus, the channels and facilities that are in place to convey these messages must be such that vital information expected by customers for instance; delays to expected time of departures and arrivals, reservations and updating passengers regarding the progress of flights are effectively conveyed. Customers reserve the right to know because they have paid for a service. It is a major flaw in the design of service specifications to neglect this important responsibility which this study has identified as one of the major shortcomings experienced by customers. Modern day technological innovations have made it inexcusable for such lapses. Rather it accords a variety of channels whereby information can be easily transferred. The principle of communication within the service industry is a key component that ensures customers are kept abreast with relevant information. Considerable evidence from this investigation reveals that customer feel slighted and undervalued for neither getting any compensation nor apology for any misgivings on the part of the service providers. Customers are the bedrock of the industry's success and if they place such value on the customer, then they will never miss a chance to properly tender an apology or pay compensation to an aggrieved customer. Findings revealed that customers if ever, got impersonal apologies or not at all and will never as matter of fact get compensated. It is not only ideal but compulsory for the airline industry to incorporate this standard practice as part of their corporate ethics as customers are priceless and should be treated with respect and dignity. The present study has several limitations in that it only explicates on the existing theoretical issues. First, empirical and granularly research is needed in order to examine the level of customer satisfaction in the Nigerian airline industry. In addition, a much more nuanced comparative study is needed to examine the level of customer satisfaction in other developing countries.

REFERENCES

- Accenture, (2005), Poor Customer Service is Top Reason Consumers Switch Providers. Accenture Survey Finds [Online] http://newsroom.accenture.com/article_display.cfm?article_id=4238 (Accessed: 20 September 2012)
- Adekola, S., (2012), NCAA gives Airlines 6 Months to Install Safety Gadget, Nigerian Tribune [Online] <http://sundaytribune.com.ng/index.php/aviation/51264-ncaa-gives-airlines-6-months-instal-safety-gadget> (Accessed: 30 November 2012)
- Angelova, B. and Zekiri, J., (2011), Measuring Customer Satisfaction with Service Quality Using American Customer Satisfaction Model (ACSI), *International Journal of Academic Research in Business and Social Sciences*, Vol. 1/3, pp. 232-258
- Bena, I. and Sandru Iona, M.D., (2009), Building a Relationship with the Customer: A CRM versus a QM Perspective, *Annals of the University of Oradea, Economic Science Series*, Vol. 18, Issue 4, pp586-590
- Buttle, F., (1994), SERVQUAL: Review, Critique, Research, Agenda, Vol. 30/1, pp.8-32

- Chau, V. and Kao, Y. (2009), Bridge over Troubled Water or Long and Winding Road? Gap-5 in Airline Service Quality Performance Measures, *Managing Service Quality*, Vol. 19, Issue 1, pp. 104-132
- Ehigie, O.B., (2006), Correlates of Customer Loyalty to their Bank: A Case Study in Nigeria, *International Journal of Bank Marketing*, Vol. 24, Issue 7, pp.494 - 508
- Evanschitzky, H., Ramaseshan, B., Woisetschlager, M.D., Richelsen, V., Blut M. and Backhaus, C., (2012), Consequences of Customer Loyalty the loyalty program and to the Company, *Journal of the Academy of Marketing Science*, Vol. 40, Issue 5, pp. 625-638
- Dick, A.S. and Basu, K., (1994), Customer Loyalty: Toward an Integrated Conceptual Framework, *Journal of the Academy of Marketing Science*, Vol. 22, Issue 2, pp. 99-113
- Eze, C., (2013), Williams- Nigerian Airlines need Mergers to Survive [Online] www.thisdaynewspaper.org (Accessed 2 January 2013)
- Eze, C., (2012), International Aircraft Movement in Nigeria's Airspace Increases by 12.8%, This Day Newspaper [Online] Available at: www.thisdaynewspaper.org(Accessed: 18October 2012)
- Frankfurt, J.F., (2012), Nigerian Nightmare, *Aviation Week and Space Technology*, Vol. 174, , 21
Federal Airports Authority of Nigeria, Statistics [Online] Available at:
<http://www.faanigeria.org/statistics.html> (Accessed: on 25 September 2013)
- Gilmore, A. (2003), *Services Marketing and Management*, 1st Edition London: Sage Publications Ltd
- Godson, M (2009) *Relationship Marketing*, Oxford: Oxford University Press
- Gronroos, C., (2004), The Relationship Marketing Process: Communication, Interaction, Dialogue, Value, *Journal of Business and Industrial Marketing*, Vol. 19, Issue 2, pp.99-113
- Gronroos, C. (2007), *Service Management Marketing Customer Management in Service Competition*, 3rd Edition, John Wiley & Sons Ltd, USA
- Gupta, S., Hanssens, D., Hardie B., Khan, W., Kumar, V., Lin, N. and Sriram S.R.N., (2006), Modelling Customer Lifetime Value, *Journal of Service Research*, Vol. 9, Issue 2, pp. 139-155
- Jajee M. S and Ahmad S.B.F (2012), Evaluating the Relationship between Service Quality and Customer Satisfaction in the Australian Car Insurance Industry, *International Conference on Economics, Business Innovation*, Vol. 38, pp. 219-223
- Jham, V. and Khan, M. (2009), Customer Satisfaction and its Impact on Performance in Banks: A Proposed Model, *South Asian Journal of Management*, Vol. 16, Issue 2, pp. 109-126
- Jobber, D., (2010), *Principles and Practise of Marketing* 6th ed., London: McGraw Hill Publications
- Leadership Newspaper, (2012), We will help Nigeria Develop its Aviation Industry- British Airways [Online]http://www.leadership.ng/nga/articles/40781/2012/11/22/we_will_assist_nigeria_develop_its_aviation_industry_british_airways.html (Accessed: 10 December 2012)
- Lovelock, C., and Writz J., (2007), *Services Marketing People, Technology, Strategy*, 6th ed., New Jersey: Prentice Hall
- Lovelock, C, Wirtz, J., and Chew, P (2009) *Essentials of Services Marketing*, London: Sage
- Mendoza, L.E., Marius, A.; Pérez, M. and Grimán, A. C., (2007), Critical Success Factors for a Customer Relationship Management Strategy, *Information and Software Technology*, Vol. 49, pp. 913-945
- Meyer F.C., and Mostert, G.P., (2010), The Influence of Passenger Satisfaction on Relationship Formation in the South African Domestic Airline Industry, *South African Journal of Business Management*, Vol.42, Issue 4, pp.79-87

- Mittal V., Ross, W.T. and Bovdasare P.M, (1998), The Asymmetric Impact of Negative and Positive Attribute-Level Performance on Overall Satisfaction and Repurchase Intentions, *Journal of Marketing*, Vol. 62, pp. 3-37
- Natalisa, D. and Subroto, B., (2003), Effects of Management Commitment on Service Quality to Increase Customer Satisfaction on Domestic Airlines in Indonesia, *Singapore Management Review*, Vol. 25/ 1, pp.85-104
- Ndubisi, O.N., (2007), Relationship Marketing and Customer Loyalty, *Marketing Intelligence & Planning*, Vol. 25 /1, pp. 98 - 106
- Nitzan, I. and Libai B., (2011), Social Effects on Customer Retention, *Journal of Marketing*, Vol. 75/6, pp 24-38
- Olajide, P.O., and Israel, N.A., (2012), Effect of Customer Satisfaction on Customer Loyalty among Selected Bank Customers in Ado-Ekiti Metropolis Nigeria, *Interdisciplinary Journal of Contemporary Research in Business*, Vol. 3/11, pp. 228-236
- Oliver, R.L., (2010), *Satisfaction: A Behavioural Perspective on the Consumer*, 2nd ed., New York: McGraw Hill
- Omachonu, V., Johnson, C.W. and Onyeaso, G., (2008), An Empirical Test of the Drivers of Overall Customer Satisfaction: Evidence from Multivariate Granger Causality, *Journal of Services Marketing*, Vol. 22 Issue 6, pp. 434 - 444
- Parker, C. and Mathews, B.P.,(2001), Customer Satisfaction: Contrasting Academic and Consumers' Interpretations, *Marketing Intelligence and Planning*, Vol.19, pp.38-44
- Parvatiyar, A. Sheth, N.J. (2001), Customer Relationship Management, Emerging Practice, Process and Discipline, *Journal of Economic and Social Research*, Vol. 3, Issue 2, pp. 1-34
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1988), Servqual: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality", *Journal of Retailing*, pp. 12-40
- Payne, A. and Frow, P., (2006), Customer Relationship Management: from Strategy to Implementation, *Journal of Marketing Management*, Vol. 22, pp.135-168
- Reicheld, F.F. and Schefter, P., (2000), E-Loyalty: Your Secret Weapon to the Web, *Harvard Business Review*, July – August, pp.104-113
- Reichheld F.F. and Sasser, W.E. (1990), "Zero Defections: Quality Comes to Services", *Harvard Business Review*, September, pp.105-111
- Rigby K. D, Reicheld, F.F and Shefter, P., (2002), Avoid short-fall Perils of CRM, *Harvard Business Review*
- Ringle, M.C., Sarstedt, M. and Zimmerman, L., (2011), Customer Satisfaction with Commercial Airlines: The Role of Perceived Safety and Purpose of Travel, *Journal of Marketing Theory and Practise*, Vol. 19, Issue 4, pp.459-472
- Rust, T. R. and Huang, M., (2012), Optimising Service Productivity, *Journal of Marketing*, Vol. 76, pp.47-66
- Sheth, J.N., (2002), The Future of Relationship Marketing, *The Journal of Services Marketing*, Vol. 16, No. 7
- Soliman S. H. (2011), Customer Relationship Management and its Relationship to the Marketing Performance, *International Journal of Business and Social Science*, Vol. 2/10, pp.166-182

- Stauss, B. and Neuhaus, P., (1997), The Qualitative Satisfaction Model, *International Journal of Service Industry Management*, Vol. 8, Issue 3, pp. 236 – 249
- Sureshchandar, S.G., Rajendran, C. and Anantharaman, N.R. (2002), The Relationship between Service Quality and Customer Satisfaction- A Factor Specific Approach, *Journal of Services*, Vol. 16. Issue 4, pp.363-379
- Ward, T. and Dagger, S.T., (2007), The Complexity of Relationship Marketing for Service Customers, *Journal of Services Marketing*, Vol. 21, Issue 4, pp. 281 - 290
- Williams, C.K., (2007), Core Qualities of Successful Marketing Relationships, *Journal of Management and Marketing Research*, pp. 1-29
- Yi, Y. and Jeon H. (2003), Effects of Loyalty Program on Value Perception, Program Loyalty and Brand Loyalty, *Journal of the Academy of marketing Science*, Vol. 31, pp229-240
- Zeithaml, V.A., (2000), Service Quality Profitability and the Economic Worth of Customers : What we know and what we need to Learn, *Journal of the Academy of Marketing Science* Vol. 28, Issue 1, pp. 67-87
- Zineldin, M. and Philipson, S., (2007), Kotler and Borden are not Dead: Myth of Relationshi Marketing and Truth of the 4P's, *Journal of Consumer Marketing*, Vol. 24, Issue 4, pp.229-241

2011 MUNICIPAL ELECTIONS IN SOUTH AFRICA: BETWEEN PARTICIPATION AND APATHY IN DURBAN (SOUTH AFRICA)

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ABSTRACT

South Africa is poised to hold its next municipal elections in 2016. The last municipal elections held in 2011 provided invaluable insights from which all stakeholders can benefit. This study starts by reviewing related studies on political participation and voter apathy, elections, national and municipal elections that have been conducted in South Africa since 1994. Thereafter, by using responses to questionnaires sent a sample of 200 respondents that were randomly selected in Durban, the study investigates the level of Durban resident's attitude towards voting with reference to the 2011 Municipal Elections. The study finds that 58% have voted in previous elections, 70% were registered to vote in the 2011 Municipal elections, but 66% actually voted in 2011 Municipal Elections and 68% intends to vote in future. Several reasons were advanced for participating by those who voted and those who could or did not vote in the 2011 municipal elections offered explanations.

INTRODUCTION

In 1994, South Africa transitioned from an apartheid system to a democratic system of government. The 1994 elections resulted in a change in government, with the African National Congress (ANC) coming to power and have won subsequent elections at national level in 1999, 2004 and 2009. Since elections are a cornerstone of democracy, the Constitution of South Africa (Act 108 of 1996) thus makes provision for this major political exercise at local government level. Hence, the people elect councillors every five years to serve. The experience of South Africa with post-1994 democratic elections has therefore attracted the interest of academics, political scholars who have all diagnosed, analysed and seek to explain varying dynamics associated with the few elections held so far in South Africa.

In this paper a few of these studies will be reviewed to place the study in context and to underscore the fact that electoral studies is beginning to generate a great deal of interest, at least amongst scholars in post-1994 South Africa. To start with Hamill (2004, pp. 691-708) investigated South African politics, the political systems, political participation with regards to the 2004 elections and political parties wherein the article discusses the securing of another emphatic victory by the ANC in South Africa as well as obtaining a two thirds majority and a clean sweep in provincial elections in April 2004. It also assesses the principal opposition parties and considers why some have performed so poorly. Lemon (2007, p. 26) investigated the outcomes of the elections and these outcomes are examined in relation to indicators of participation and competition. He also pays attention to the influence of ethnic, regional and other divisions on outcomes. McLaughlin (2008, pp. 23-34) assesses competing hypotheses about the micro-foundations of South African vote choice: by studying the correlates of a strategic voting behaviour, split-ticket voting. This is accomplished by analysing data from a 1997 survey in which respondents participated in a 'mock election'. This was after many scholars were worried that South African liberalization would result in racial and ethnic conflicts or election would be little more than ethnic/ racial consensus.

Davids & Hadland (2008, pp. 277-291) argue that stable elected representation institutions, relatively well run elections and a constitution are not sufficient for democratic consolidation. He argues that democracies require people who are willing to support, defend and sustain them. The study also found that the government performance in policy areas such as housing had no significant impact on satisfaction with democracy. Tonkin (2009, pp. 1-14) discusses the South African elections held in 2009 in terms of moral and ethical values. The political parties in South Africa include the African National Congress (ANC), the

Democratic Alliance (DA) and the Congress of the People (COPE) and the results of the election resulted in the ANC receiving 65.9% of the national vote. Other findings by this study were that South Africa has the fullest spread of values than anywhere else in the world and that these values set the political parties and will thus surely move the country towards a more developed model. Perry (2009, pp. 38-41) investigated the South African parliamentary and presidential election on April 22, 2009, and how the African National Congress (ANC) party is expected to win a fourth consecutive term. The author describes how Nelson Mandela's ANC, has been affected by scandal, infighting, and the financial crisis. The article describes the effect of the economic crisis on the country's Eastern Cape and why it has not been alleviated by the ANC. Africa Monitor (2004) investigation on how voter apathy raises concerns about the health of the country's democracy, and may possibly be a strategic worry for the ruling ANC. A second round of registrations may improve the outcome, but so far, less than one-third of potential new voters have signed-up.

The study claimed that Independent Electoral Commission (IEC) had greater success with females than males, and in cities compared to rural areas. The commission prepared for another round of registrations in January/February 2013 in the hope of attracting more interest. Clearly, it is difficult to know without detailed research why so many people decided not to register, and it is highly probable that many failed to do so due to work commitments. Yet it is easy to suspect that given the still-prevalent very high levels of unemployment and poverty after ten years of ANC rule, frustration with the ruling party is also a major explanation.

STUDIES ON VOTER APATHY

The following articles look specifically on voter apathy. Neo Bodumela (2011), interviews people of different demographics to acquire reasons behind voter apathy, and in response they had this to say, "I don't think I'll vote because the political situation is in chaos. There is so much in-fighting and corruption. Whether I vote or not, won't make any difference because the ANC will still win." Cindi Mde, Motherwell: "What is the point of voting? Putting that X is just a waste of ink because we are still struggling and suffering".

The South African Broadcasting Corporation (SABC) reported that voter apathy in local government elections is an international phenomenon which statistics have also shown that in South Africa, voter turnout in these elections is much lower compared to national elections. The lower turnout has been prompted by, in most instances, the failure by local government to deliver services to the people. The Protea South informal settlement in Johannesburg has learnt that on occasion, protesting does yield results. Many people in the area do not get government built houses allocated to them, because they are being sold. The Protea South community has had enough of living in squalor, without basic services. They also complain that elected councillors are now shunning them and do not perform their mandated responsibilities.

With the May 2011 Local Government Elections, politicians and their parties blazed campaign trails across the length and breadth of South Africa's municipalities. Equally, the spate of community protests has increased over the years. The reasons include concern over a lack of service delivery, corruption and lately, disagreement over candidate lists. The Morning Call Source (2004) discusses how apathy could keep many registered voters from the polls. It discusses how the poor service delivery in some of the country's rural areas and slow development and progress in these areas could be the leading source of apathy. Butcher (2004, p. 10) investigates one of the reasons for the lack of interest 10 years after democracy is the failure by government to meet up with the thousands of demands of its people still living in shacks. Elliott (2004, p. 14) points out how President Mbeki and the ANC were poised (prepared) to retain or even increase its sweeping parliamentary majority in the 2004 elections. Davids & Hadland (2008, pp. 277-291) argue that participation in the mainstream economy is so severely compromised for blacks that there is still, and will be for some time, a need for state-driven actions to ensure transformation of South African society. It will certainly be to the South African government's advantage if it was to improve on its strategy to communicate with its citizens. The study, for example, found that respondents who believed that government is preventing citizens from criticizing it as well as censoring information that is given to the public were less likely to be satisfied with the way democracy is working. Benjamin (2011, p. 2) argues that, it is hoped that a campaign by the Independent Electoral Commission (IEC), appealing to the pride of South Africans and playing on emotions stirred up by the hosting of the 2010 World Cup, will encourage voters to vote. The last two local elections saw only 48% of registered voters make their mark. Houston (1999, p. 20) reported on how the South African citizens were wrapped in blankets against the cold, lining up even before the sun came up, many of them giddy with the excitement of voting for only the second time in their lives. Lines outside voting booths sometimes stretched for nearly a mile. Though the polls were

supposed to close by 9 p.m., many remained open much later to accommodate those who had stood for hours but had not yet had a chance to mark their ballots. Mavuso says the rationale behind voter apathy over municipal elections is yet to be established. However, for 21-year old Wits student, Ayabonga Cawe, the upcoming municipal elections are nothing more than a futile exercise. Cawe is an active member of the radical group, BLACKWASH, whose members do not take part in elections, whether local or national.

MOTIVATION AND METHODOLOGY

There has not been any research conducted which specifically looks at the vagaries of residents participation and or apathy with reference to voter apathy in Durban. Durban is a major city in South Africa, with a population of about 2.5million. Thus, the objective of the study was to find out possible reasons for political participation and voter apathy amongst Durban residents. In terms of methodology, the study adopted two sampling strategies, namely the judgmental/purposive sampling strategy. The sample of 200 was randomly selected from the above population. The questionnaires were delivered by hand to respondents to fill and return, while the investigators filled some based on responses from interviewers. The adoption of both methods helps to summarize data in graphs, tables as well as pie charts.

DATA ANALYSIS

The following section deals with the analysis of data, presentation of the results using tables, graphs and or charts. The demographic information shows that there is gender imbalance with more female respondents than males. Therefore, the results are biased towards female opinion. The dominant age range was between the ages of 30-40 years, with the oldest being over 50 years. The respondents seem to be literate as most of them were able to answer and interpret the questions without any form of assistance

Table 1. Gender and racial category of respondents

GENDER	NUMBER OF RESPONDENTS
Female	112
Male	86
RACIAL CATEGORY	NUMBER OF RESPONDENTS
African	82
White	44
Indian	38
Coloured	34

Table 1 indicates that there are 112 female participants (57%) and 86 male respondents (43%). The majority of the respondents were female participants. As the frequency table clearly shows, there is imbalance between male and female respondents. The extremely small number of male respondents will make it difficult to influence the results. This tendency for young females to respond to the survey may be indicative of politics in general and elections in particular. It has been reported that men are more dominant in politics and political leadership, but this study shows that females are the majority participants. The table also illustrates the racial representation of the respondents. Majority of the respondents were Africans 82 (41%), followed by Whites 44 (22%), Indians 38 (19%) and Coloureds 34 (17%). The results of the study reflect the opinions of the dominant race, the African race, as well as the gender with the majority of respondents being female.

Table 2 illustrates that the majority of the respondents were between the ages of 20-30 and 30-40 with both having a total number of 53 (27%) respondents. The lowest number of respondents being over 50 (9%) and 40-50 with 43 (22%) respondents.

Table 2: Age Respondents

Under 20	20-30	30-40	40-50	Over 50
30	53	53	43	18

Figure 1 - Age Respondents

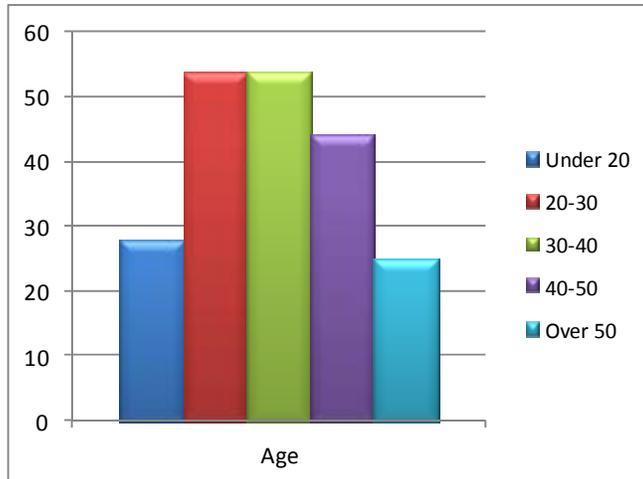


Table 3: Respondents who participated in any previous Municipal Elections and those who did not

Response	Figures in %
Yes	114 (58%)
No	84 (42%)

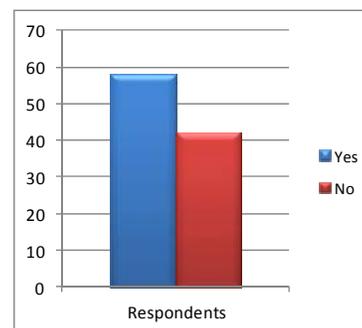
The respondents illustrate that a larger number did participate in previous Municipal Elections. These are some of the reasons for not participating in previous elections:

- ‘Did not see local elections as important only national.’
- ‘Still underage at that time and not legible to vote.’
- ‘Generally not interested in politics.’
- ‘Do not believe in politicians, they make empty promises’
- ‘No development taking place in our area’
- ‘Angry with the slow developments’
- ‘Have never owned an ID’
- ‘Worked outside the country till 2007’
- ‘Do not want to be involved in politics’
- ‘Was not in the right state health wise’
- ‘Was not happy with the party in power’

Figure 2 - Participated in Previous Election

Table 4: Respondents who registered to vote in the 2011 Municipal Elections and those who did not

Response	Figures in %
Yes	138 (70%)
No	69 (30%)



Majority of the respondents did register to vote in the 2011 Municipal Elections with 70% who registered and only 30% who did not register.

These were the reasons stated for not participating:

- Voting stations were too far
- No change or developments in their areas which has made them loose interest
- Not interested in politics
- Not satisfied with government
- Lost their ID books
- Don’t work in their regions and it expensive to travel back to their respective regions to cast their votes
- Too busy to register
- Do not believe their vote will make a difference ANC will be victorious anyway
- No faith in government

- Scared to participate in politics their areas are politically intolerant.
- Could not get registered on time, work schedules are not flexible enough

Majority of the respondents participate in the 2011 Municipal Elections, 66% said yes and only 34% did not vote in those elections. These were the highlighted reasons:

- They could not be in their region in time for the elections
- Did not register
- They do not believe that voting will make a difference in their situations and it is therefore pointless to vote
- People who get into power only enrich themselves
- Not interested in South African politics
- The results are always the same and so there's no point in voting
- The government does not provide services so why vote
- Government does not respond and does not create employment
- No ID books
- Municipal elections are not important only national elections are worth participating

Figure 3 - Voters Registered

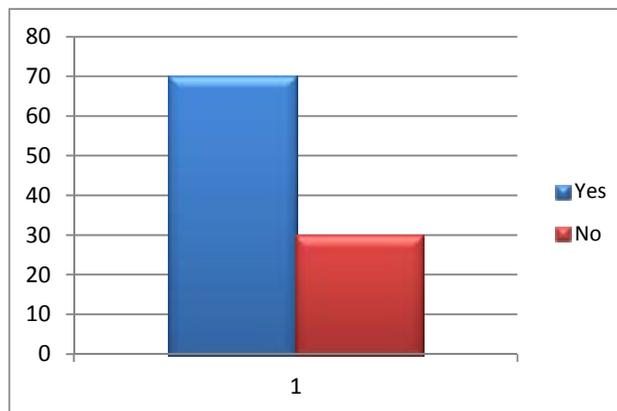


Table 5: Respondents who voted and those who did not vote in the 2011 Municipal Elections

Response	Figures also in %
Yes	130 (66%)
No	68 (34%)

Figure 4 - Voters who voted/did not vote

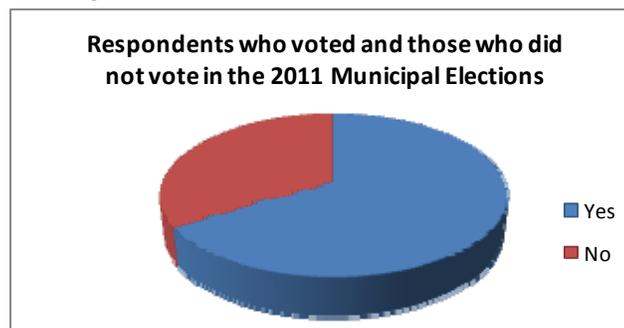


Table 6: Respondents who will vote in future elections and those who will not

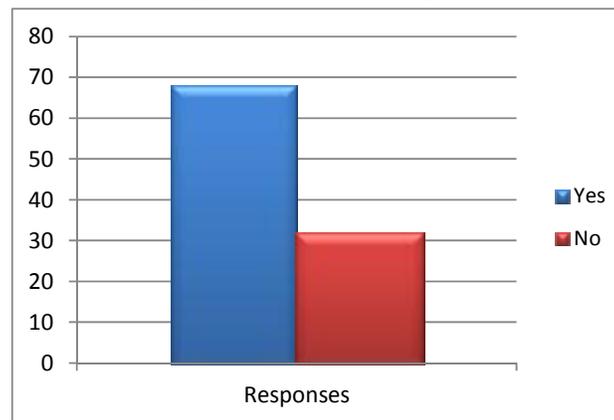
Response	Figures in %
Yes	134 (68%)
No	64 (32%)

The majority of the respondents will vote in future elections, 68% responded positively. However, 32% of the respondents do not anticipate in voting in future elections and these were some of the reasons:

- They do not see any party as deserving of their vote they have all let them down
- They do not see any change in leadership that is progressive

- They just do not see the need to vote... they have no interest
- Others claimed they are still poor after so many years in democracy and they don't see government doing anything to change their circumstances
- They feel that politicians are looking out for themselves and have forgotten about them,
- They indicated that government is useless
- Politics is dirty and they do not want to be part of it
- They don't believe their single vote makes a difference
- Some respondents felt that the people in power often fail to deliver.
- Some are battling with poor health; do not think they will be doing themselves a service to go stand on lines for several hours.
- ANC will still be in power
- Others argue that it takes too much time to vote

Figure 5 - Future-Voting Pattern



CONCLUSION

The study focused on political participation and voter apathy with reference to the 2011 Municipal Elections. This was done through a development of a questionnaire and interviews. The respondents in Durban indicated that majority of those interviewed participated in previous elections, registered in the 2011 Municipal Elections, voted in the 2011 Municipal Elections and will vote in future elections. The minority also stated legitimate reasons as to why they did not participate, their lack of interest in politics, dissatisfaction with the slow developments and response from government as well as job creation were some of the major issues raised by the respondents. This study also finds that the high rate of unemployment amongst other things has played a significant role in the lack of interest and unwillingness to participate in such political exercise.

REFERENCES

- Africa Monitor. (2004). Election, What Election? *Africa Monitor: Southern Africa*, 9(1).
- Bauer, C. (2009). Elections and its effect on service delivery. *Politeia*(1), 28-43.
- Benjamin, C. (2011). *Participating in the elections for South Africans will be national pride*. Johannesburg: Business Day.
- Bodumela, N. (2011). *As the race for the local government election heats up, apathy has set in with some voters who believe their voice will not help to root out corruption and political infighting in the city*. Port Elizabeth, South Africa: The Herald.
- Booyesen, S. (2009). With the ballot and the brick: the politics of attaining service delivery. *Progress in Development Studies*, 7(1), 21-32.

- Business Day. (2004). *No rebel attacks or 113-degree heat here just voter apathy to be overcome primary election*. Johannesburg: Business Day.
- Butcher, T. (2004). *Apathy of voters threatens South African elections: 10 years after apartheid, millions don't care*. Johannesburg: Daily Telegraph.
- Creswell, W. (2009). *Research Methods: Qualitative and quantitative Approaches*. Whitewater: University of Wisconsin.
- Davids, Y., & Hadland, A. (2008). Satisfaction with the way Democracy is working in Post-Apartheid South Africa. *Politikon: South African Journals of Political Studies*, 35(3), 277-291.
- De Beer, S. (2009.). *The media and elections,, A handbook and comparative study* (Vol. IV). St Leonards, N.S.W: Lawrence Erlbaum Associates Publishers.
- Elliott, S. (2004). *South Africa's leading party, voter apathy expected to grow*. Johannesburg: Sowetan.
- Etzo, S. (2010). The unfinished business of democratization': struggles for services and accountability in South African cities. *Democratization*, 17(3), 564-586.
- Graham, S. (2011). *Voter apathy expected to grow in Grahamstown as the service anger builds (12 May 2011)*. Johannesburg: The Citizen.
- Hamill, J. (2004). The Elephant and the Mice: Election 2004 and the Future of Opposition Politics in South Africa. *Round Table*, 93(337), 691-708.
- Houston, C. (1999). *Freedom Park*. Johannesburg: News Bank.
- Kobedi, P. (2011). *SA not suffering from voter apathy*. Johannesburg: Mail and Guardian.
- Lefko, E. K. (2009). Section one. *Testing democracy: Which way is South Africa going*, 7(3), 150- 162.
- Lemon, A. (2007). Perspectives on democratic consolidation in Southern Africa: The five general elections of 2004. *Political Geography*, September , 26.
- Lipietz, B. (2008). Building a Vision for the Post-Apartheid City: What Role for Participation in Johannesburg's City Development Strategy. *International Journal of Urban & Regional Research*, 32(1), 135-156.
- Mafalo, E. (2006). Nurses need to be more politically active to influence government health care policies. *Nursing Update*, 20(1), 4.
- Mathekga, R. (2006). Public participation and the lack of service delivery before and after the 2006 local government elections in the Free State. *Colombia International*, June (63), 88-107.
- Mclaughlin, E. S. (2008). Racial, Ethnic or Rational Voters? Splitting Tickets in South Africa. *Politikon: South African Journal of Political Studies*, 35(1), 23-34.
- Miller, R., & Dingwall, K. (1997). *Research Methodology*. London: Sage Publications.
- Murphy, J. (2004). *Elections*. Baltimore, MD: The Sun.
- Perry, A. (2009). South Africa Looks for a Leader has also been reviewed. *Time*, 173(6), 38-41.
- Political Staff. (2011). *Election turnout expected to rise in the 2011 municipal elections*. Johannesburg: Business Day.
- SABC. (2011). *Municipal elections, voter apathy a concern in South Africa*. Johannesburg: South African Broadcasting Corporation.

StatsSA. (2007). *Community Survey*. Pretoria: Statistics South Africa.

Struwig, F., & Stead, G. (2007). *Planning, Designing and Reporting Research*. Cape Town: Pearson Education South Africa.

Tonkin, A. (2009). The South African elections 2009: A Values Perspective. *Integral Leadership*, 9(3), 1-14.

SOUTH AFRICA, CHINA, AND THE ETIOLOGY OF COMPETING ECONOMIC AND GEOPOLITICAL INTERESTS IN 21ST CENTURY AFRICA

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ABSTRACT

Background: *The greatest future of any sector lies in Africa. The framework of South-South cooperation draws on earlier frameworks of a new international economic order and non-alignment where western conditionalities (Amanor, 2013) are seen as imposing policies on Africa that do not necessarily meet African needs. There is a pragmatic acceptance of South Africa's hegemonic strength in Africa yet South Africa might be walking "a political tightrope" (Burrows, 2013) as there is growing African leader resentment in the way South Africa professes to speak for Africans. South Africa needs to consult more to strengthen its credentials to speak on behalf of Africa (Fraser & Dube, 2013), especially if African priorities are drawn from a continental (AU) dialogue. Sovereign African nations with varying policy perspectives maintain special relationships with erstwhile European Union colonial masters, BRICS nations and strategically align themselves with South Africa. Nonetheless the growth of regional economies in Africa help undermine South Africa's "right to be the key gateway for the continent", coinciding with global economic recession and the focus on Africa as a favourable source of raw materials.* **Objective:** *The paper analyses South Africa's continental opportunism in BRICS; non-judgementalism of the Chinese and their willingness to expose themselves to risk, whilst South Africa is risk-averse.* **Methods:** *The etiology of ideology in 21st century is a relatively new phenomenon; this paper adopts a contemporaneous analysis of and draws inferences from interviews, intergovernmental reports, journal articles, and interlocutory proceedings.*

INTRODUCTION

Globalization is transforming the nature of authority in international relations, impacting the dynamics of regional and global relationships. Geo-governance is gradually replacing hegemony thereby extending representation and accountability to a wider group of states and stakeholders to reflect the emergence of these new forces. Schraeder (2004, pp. 57-59) asserts that 'the era of globalization' is the preferred term to describe the current period that is significantly impacting the developing world. Contemporaneous notions of imperialism and capitalist empire have gained importance in critical globalization studies, with (Fuchs, 2010, p. 33), Fakir (2013), CDKN (2013) and UNDP (2013:43) averring that the number of emerging countries which are evolving as major economies and are reshaping the developmental landscape of geopolitics.

With the dawn of the 21st century, Africa has embarked on an expansive drive for a new democratic geopolitical order a mosaic of old structures and new arrangements for international development and global governance (Brosig, 2011, pp.147-167). Africa is this century's most visible economic battleground as the current surge in investment activities in Africa (with more countries per continent than any other) being best described as a 'new scramble for Africa's resources' (Benkenstein, 2011, pp. 271-274).

Takhal (2013), Zhu (2012, p. 1) and Burrows (2013, p. 29) agree that in recent years, this "scramble" has intensified and targeted by the economic bloc comprising Brazil, Russia, India, China and South Africa (BRICS). BRICS is an emerging super-power, which is rearranging the world order and perceptually challenging the 60-year hegemony of the Bretton Woods Institutions. BRICS countries are the new largest investors and trading partners to the African continent with strong exponential growth potential for the future.

The conceptual theoretical framework/s informing BRICS as an economic bloc in Africa is a relatively nascent phenomenon and amorphous, lending credence to such theories continually evolving. The absence of a theory on BRICS and its nation states has led scholars explore the interplay between international regimes and to develop typologies. The construct of this paper will draw occasionally on the theories such as the Goldman Sach's thesis underpinned by Development Theory for a new world economic order, supported by the International Relations theory and the Neo-Patrimonial Power System.

The first part of the paper will review the BRIC phenomenon targeting Africa as a growth avenue. The second part of the paper will specifically look at the enantiodromiac South African and Chinese strategic competing interests as BRICS nations in Africa. It will also offer some reflections on the neo-patrimonial power system of African leaders engaging their own personal interest as contrasted to that of the greater economic welfare of the nation.

BRICS - Competing Regionalism in Africa

Putin (2013) asserts that BRICS holds a unique place in the global economy; a position validated by Soko and Qobo (2010) and Sanwal (2013) who believe that BRICS wield significant economic, political, and diplomatic authority and have become crucial power brokers in the developing, volatile, multi-polar world order. The establishment of BRICS and IBSA (India, Brazil, and South Africa) was to define a collective new role within the existing world order rather than to create a new order based on an alliance that is not yet mature, nor one that has a clear political doctrine of its existence. The modest agreement on establishing a development bank and pooling of currency reserves has seriously catapulted BRICS beyond a dialogue forum to cooperative mechanisms challenging the 60-year hegemony of the Bretton Woods Institutions.

Oxfam underscores the close relationship where BRICS investors are targeting low-income African countries with weak internal governance. In interrogating African leaders' acquiescence to BRICS's initiatives in their countries, African countries are driven largely by personalized governments often held hostage to the political will of such leaders lending credence to the maxim "enrichment without development". There are growing internal and external pressures on African leaders to introduce good governance and democracy, through the gatekeepers of the African Union (AU), the peer review mechanism of NEPAD structured around an independent review process of an African country's adherence to good governance criteria.

These rising powers, once predominantly regarded as aid recipient countries, are now becoming more active as donors in their own right, raising important issues for debates on the future of international development cooperation. Whilst Tull (2006, p. 459) opines that China is building roads and airports in Africa, Brazil is supporting reconstruction in Angola, and India is promoting wind power in East Africa, Donnelly and Benjamin (2013, p. 2) iterate that although BRICS countries share common goals, there are however many areas and issues where they differ and exhibit internecine rivalry amongst the cohorts. According to Standard Bank research analysts Simon Fremantle and Jeremy Stevens (2013), despite increasingly robust trade between BRICS and the African continent, member nations compete more than they collaborate.

Clark (2013) claims that by 2020 the combined economic output of Brazil, China and India will surpass the aggregate production of Canada, France, Germany, Italy, the United Kingdom and the United States. Much of this expansion is being driven by new trade and technology partnerships within the South itself.

Lund (2013) argues that although BRICS promotes cooperation and mutual benefit in the alliance; however, the relationships are not always smooth and are filled with contradictions. Ferrando (2013) identifies that mounting tension around BRICS nations competing for the same finite resource and attacking each other's sovereignty, a situation that could degenerate international relations and create diplomatic tensions and deeper political instability. China's "dumping" of cheap goods in South Africa and the rest of the continent has been blamed for contributing to the decline in local manufacturing. However, the Chinese reaction to these concerns was that 'any move by the South African government to restrict textile imports from China would violate the WTO free trade agreement' (IRIN News29.6.2005). Similarly, South Africa has approached the World Trade Organization (WTO) in a dispute about chicken imports from Brazil and regulatory hurdles faced by South African based MTN to abandon a tie-up with Indian owned

Bharti Airtel while South Africa's Shoprite abandoned an Indian venture in 2010 due to the Indian government's curbs on foreign ownership of retail businesses.

The diversity of BRICS member states' interests means it is difficult to act in concert leading to competing industrial growth strategies often in the same sector and same African country. For Gumede (2013, p. 23) the success of the BRICS partnership will depend on whether individual members can overcome the dilemma of being allies as well as fierce competitors for markets, goods and geopolitical influence, whereas African nations must learn to trust themselves, in order for Africa to move forward.

BRICS Development Bank

After the financial crisis of 2008, there is a questioning of the free market ideology, or “Washington Consensus”. Sanwal (2013) posits that the development bank signifies that BRICS, and others, will not look to the West for developmental guidance and will evolve their own state-driven infrastructure led frameworks that will support sustainable development. Learning the five Rs has become all-important in diplomatic and commercial circles. These are the real (Brazil), rouble (Russia), rupee (India), renminbi (China) and the rand (South Africa). More importantly, each of the individual BRICS countries is a rising regional power.

Gentle (2012) believes that a battle is being waged over the role of the dollar. The US dollar's relative decline has opened the door to a number of potential challengers. Therefore, a new “BRICS Consensus” will have to respond to resource scarcity as the most dominant global trend, making the shift more than just a continuation of the current system, requiring new global rules based both on markets and on social considerations.

The rise of the South is also creating new possibilities for financing equitable and sustainable human development. The 2013 Fifth (5th) BRICS Summit held in South Africa resolved to establish a BRICS Development Bank that draws upon considerable reserves to finance projects in developing countries. Such a bank like the European Bank for Reconstruction and Development, could offer a range of instruments, including loans, equity and guarantees. In addition to financing productive projects, this flow of resources would also assist with global financial re-balancing (UNDP, 2013, p. 117).

Gumede (2013, p. 23) argues that it would be easy to impute that BRICS want to compete with existing multi-lateral institutions like the World Bank and the International Monetary Fund (IMF), yet all the BRICS countries have a relationship with the bank and this line of thought, of a competing institution, is hard to accept at face value. While institutions matter, the new BRICS development bank is not just a ‘litmus test’ but a major step in reforming the World Bank, including towards infrastructure projects.

In Africa, its establishment could be particularly relevant because key for Africa is sources of funding for infrastructure projects. Naidu (2013, p. 29) contends that it seems China wants such a bank to be based in Beijing, but India and Russia oppose this. There is consensus amongst Fraser and Dube (2013), Sanwal (2013) and Fakir (2013) that China will most likely carry the bulk of the financial burden of the bank, as it has the largest reserves (a quarter larger than the other four combined) compared to other BRICS countries. China already has a number of financial institutions (China's Development Bank and the China-Africa Development Fund) which are well established and active on the African continent, linking it to its own strategic needs within the African continent.

It would also be prudent to have the bank in South Africa's territory that is more ‘neutral’; however, South Africa's lobbying to host the bank has more to do with status. Geopolitical reset is being matched by a change of domestic economic interests in South Africa, with a concerted move away from Western capital. However, Africa is not the only region-requiring infrastructure.

The future positioning of BRICS as the new alternative to old Anglo-Saxon capital is a vexing one with the BRICS bank attracting some hostile commentary and Fakir (2013) argues that it is not a radical departure from the norm nor will it bring about the demise of the World Bank. Similarly, Gentle (2012) notes that progressive Latin American countries had earlier mooted a Bank of the South, as a real development bank without the neo-liberal conditionalities of the International Monetary Fund (IMF) and the World Bank.

The IMF has however endorsed (April 2013) the mooted establishment of the BRICS Development Bank.

Antithetical Views - African Scholarship

While globalization should be encouraged, no nation should be a dumping ground or doormat for another. Unlike their national political leaders who are supportive of partnerships, several African scholars and civil-society such as Esiemokhai (2013), Okpa II (2013) and Ferrando (2013) have displayed a more ambivalent attitude towards the BRICS's growing presence in Africa (the elephant in the room syndrome) and decry especially China's increased presence in Africa.

Okpa II (2013) questions Africa's morality and challenges African leadership to firmly stand up, deal with, and embrace trade policies that suit her best. Africa appears to take and welcome any and everything because it lacks national pride and a sense of purpose to reject some of the foreign prescribed solutions.

It is both remarkable and ironic that BRICS member-states are made up of nations that suffered under colonial and oppressive regimes and it is this feeling of solidarity which informs their unity of purpose to overturn the existing international order that tends to perpetuate inequality among members of the "international community" (Esiemokhai, 2013). As global players in need of economic expansion Ferrando (2013) believes that the BRICS's rhetoric of 'respect of national sovereignty' and the 'promotion of solidarity' are inconsistent with the current large-scale investments in African land, which is an issue of mounting global concern, and has been described as 'land grabbing,' 'neo-colonialism,' 'modern imperialism,' 'green rush,' 'scramble for Africa,' etc. Crucial for this are the diplomatic and legislative strategies adopted by the governments of the BRICS.

From an African perspective, Adisu, et al. (2010, pp. 3-9) postulates that BRICS investment has been good in many situations, but as with other investments, it comes with a substantial price. The price includes dominance of local culture and considerations. It has also negatively impacted local trade and commerce. In some cases, African labour has not benefited from such foreign investment and in some instances, investment has even propped up some rogue regimes.

Naturally among the prime reasons complicating effective regional cooperation in Africa are the deep divisions that permeate the continent (Franke, 2007). Africa should not be behind anyone, but rather join in a symbiotic win-win relationship.

SOUTH AFRICA'S ROLE IN AFRICA

This section of the paper explores South African geo-governance and its impact in Africa vis-à-vis its strategic importance (political and economic), the construction of South African state power and its regional and international influence as a member of BRICS.

South Africa has developed a fluent narrative of global development, especially on the imperative of bridging the North-South chasm and has earned international recognition on its own intellectual and normative weight. South Africa's strategic importance to industrialized nations and its indispensability and relevance to world development, global technology and the wealth of nations is derived from the involuntary African largesse (Plato, 2013).

South Africa (Africa's largest economy) hosted the fifth BRICS Summit, which was a defining moment for the South African state thereby fostering a supportive international environment for the African continent. Zuma (2013) reiterated South Africa's foreign policy to align Africa as the centrepiece of BRICS in supporting the African integration agenda. South Africa's continued consolidation as an emerging economic powerhouse is evident in its role in formations such as the BRICS and the G20. However, South Africa's engagement with the BRICS must not be guided by ideological whims, but by a strategic paradigm that is grounded in its own domestic needs and fundamental interests.

Emerging Economic Powerhouse

As it orients its international relations according to the economic needs of its national investors, South Africa has signed several Bilateral Investment Treaties (BITs) since the end of the apartheid era (Ferrando, 2013). Hauff (2012, p. 312) and Burrows (2013, p. 29) identify South Africa as a gateway to Africa, strongly underpinned by its high and well-recognized standards of corporate governance. This position is strongly supported by Donnelly and Benjamin (2013, p. 2) and Anthony Thunstrom of KPMG Global Africa Practice, who believe that South Africa does have a significant responsibility to represent the broader interests of Africa as a BRICS member and has taken concrete steps to be inclusive. Gentle (2012) robustly defends that South Africa is not a weak partner in the BRICS nor a mere conduit; rather “it is by far the biggest “foreign investor” on the rest of the continent as South African capital is crossing the borders of Mozambique, Zambia, Swaziland, the Democratic Republic of Congo, Angola, Benin, Congo and Ethiopia. South African Transnational Corporations (TNCs) and parastatals dominate investment in SADC countries by 80% and at 40% of the continent, as a whole, it simply dwarfs the United States (US) and the European Union (EU), not to mention China, India and Brazil.

However, Volchkova and Ryabtseva (2013, pp. 1-21) view the possibility of a conflict of interest in South Africa’s strategic interaction within BRICS and how it represents other African countries’ interests. South Africa claims to have lobbied hard for Africa's inclusion in BRICS, yet critics draw attention to the missive that it was conditional “through South Africa”. This conflictual position is now being interrogated, as South Africa is a leading economy on the continent, is strategically positioned in Africa, and uses existing contradictions on the continent for its own interests. Oberholzer (2011) argues that South Africa's role as Africa's gateway is under threat as offshore investment companies become “less scared of Africa” and are directly targeting African countries rather than opt base their operations in South Africa.

Walking the Political Tightrope

The perceptions (outside Africa) are that South Africa might be walking "a political tightrope" Fraser and Dube (2013); as there is growing resentment amongst African leaders about the way in which South Africa professes to “speak” for the rest of the African continent in its role as a BRICS member; a position which does not resonate well with the African leadership (Sanusi, 2013). Many African leaders are resentful of South Africa having too great a role in the leadership of Africa, where other African countries do not enjoy parallel forms of special relationships but they have traditionally cloaked their concerns in emollient diplomatic language.

Eurozone and the Move to BRICS

The 2007/2008 global financial crisis, which had underscored the importance of diversifying South Africa’s export markets away from Europe, which currently absorbs 40% of its exports, and to explore new markets, particularly those in the fast-growing developing economies. The Eurozone is South Africa's largest trading partner Lund (2013) but intra-BRICS investment is growing. Soko and Qobo (2010) position China, the bedrock of BRICS and the only credible contender for global superpower status, as South Africa’s single biggest trade partner. Hauff (2012) and Fakir (2012) argue that South Africa wants to reduce its dependence on European markets and is keen for economic trade, at least with China and India, to slowly displace Europe’s capture of trade relations with Africa economies which had enjoyed better economic growth in the past three years, hoping that BRICS would be an integral part of this diversification strategy. Going forwards, not only African firms but also western multinationals are now finding it increasingly hard to compete with Chinese companies (Konings, 2007, pp. 341-358).

BRICS versus IBSA

BRICS and IBSA are both active in Africa’s economy, which was historically the preserve of former colonial powers and recently, also the march of South African multinational corporations into the continent. South Africa’s elevation to BRICS membership implies that its transformative policy agenda within IBSA will now be promoted within the confines of the BRICS and raises the question whether it also signals the beginning of the end of the IBSA forum (Soko and Qobo, 2010)?

With the emergence of BRICS/IBSA countries as economic giants Hauff (2012, p. 312), Africa is gradually emerging from the shackles of imposing Structural Adjustment Programmes (SAP), giving African nations the ability to escape the clutches of neo-colonial dependence on foreign aid, and the policies and 'advice' of Western-controlled financial institutions. This is reflected in capital flows from the rest of the world, which are growing at a slower pace to South Africa than to many of its rivals. One of South Africa's biggest rivals for a leading role on the continent is Nigeria.

Nigeria: Internecine Rivalry

Nigeria is the only "regional power in West Africa" prompting Esiemokhai (2013) and Adusei (2013) to articulate the Bosas International Law Bureau (Abuja) position - why has Nigeria not been recognized by the comity of nations (BRICS), while South Africa has become a force to reckon with? However, since the late 1990s Nigeria's status has been declining, leading to greater instability and insecurity in the Western African sub-region. Although the 2012 Mo Ibrahim Index of Good Governance ranked Nigeria 13th out of 15 best-governed countries in West Africa and 43 out of 52 in Africa, in the last six years, Nigeria is ranked amongst the top 20 most failed states. Meanwhile Nigeria continues to find herself in the club of G77.

In comparison, the Southern African Development Community (SADC) as a region is considered the most progressive region in Africa courtesy of South Africa. South Africa is frequently cited as a rising power with substantial growing economic, political, diplomatic, and military power with influence and power to reshape global development. South Africa is providing leadership, mobilizing, organizing, and building coalitions on key regional issues with SADC countries. South Africa is counted among global elite groups.

South Africa, though, is losing ground as its trade in Africa has increased, but not deep and fast enough prompting Gigaba (2013) to declare that South Africa needs to view Africa with a renewed business interest and develop greater economic and political diplomatic partnerships with the African continent than it has done in the past in order to grow its export destinations. In 2011, South Africa's total exports to Africa's largest economies lagged that of China significantly. Of South Africa's total exports to Africa, 0.5% was to Egypt and 4% to Nigeria compared to China's 13% and 16% respectively for the two countries. There is also some debate about whether goods exported from South Africa are actually manufactured in the country (Fakir, 2012).

Underwriting Infrastructural Spend

South Africa is limited in its ability to underwrite essential infrastructure deals given its shrinking tax-base and the overall state of finances and future infrastructure spend (including nuclear programmes) will depend on the availability of sizeable amounts of capital. There is potential for cheap money to be provided through a BRICS development finance institution or alternative funding mechanism under its auspices. China will be agreeable to provide the full package of finance and construction as well as run the nuclear plant. In return, China would ask few questions and be happy to drive hard bargains that are often not financial in nature only. The Chinese have capital, planning long term, and are willing to expose them, and their parastatals/banks, to risk. This makes South Africa leaders happy.

Neo-Imperialism

Gentle (2012) arrogates South Africa's credentials to represent the rest of the African continent as suspect, 'given the sizable intra-Africa investments made by South African companies, and its assessment how best to safeguard its citizens investment (Ferrando, 2013). As a consequence of South African intra-regional expansion, its government has BIT-type agreements on the promotion and reciprocal protection of investment (plus related protocols) with Angola, Cameroon, Democratic Republic of the Congo (DCR), Gabon, Guinea, Ethiopia, Mauritania, Namibia, Sudan, Tanzania, Zambia and Zimbabwe. This is cold comfort for ordinary Zimbabweans, Malawians and Congolese people when their experience of South African corporations is destroying local producers (as Shoprite is doing to small-scale Zambian producers) tax breaks and capital repatriation (as AngloGold Ashanti is doing in Ghana) and losing competitiveness, as the strong rand is doing in the Southern African Customs Union (SACU) countries and Zimbabwe (where the rand has become the medium of exchange).

Growl of a Paper Tiger

There are further aversions that South Africa's buckling economy and regressing human development index makes its claim as the regional power player sound like the "growl of a paper tiger". While it is seen as bold and vigorous outside, South Africa suffers a growing hollowness from within. If its economy does not grow, it will be challenged by continental rivals who may be doing better on development indicators. Soko and Qobo (2010) and Fakir (2012) and interrogate the carefully cultivated image of South Africa as an assertive regional power amongst its other BRIC counterparts.

Ma, et al. (2012) observes that while Africa ships large volumes of raw materials to China, South Africa believes that China's trade with African nations should be better balanced thereby prompting President Jacob Zuma (South Africa) to raise the unequal partnership status with Beijing where trade patterns were unsustainable in the long term if Africa was to export commodities and import only manufactured goods. China is so attractive to Zuma's South Africa because it is not judgmental, given the current context of poor governance and accountability that continues to pervade many levels of the South African state. Moreover, our political leaders will be hard-pressed to explain why the rest of BRICS is advancing while South Africa is making slow progress.

In the long-term, economic sustainability and growth in South Africa - shared with the region - and fixing problems in Africa, will be mutually beneficial. If it fails to grow the economic cake, South Africa's assertion of leadership on the global stage will be done with great constraint and continued reluctant acceptance from neighbours and the African region as a whole.

CHINA

Ncube (2013) and Walters (2013) both posit the question - does Africa need China as much as China needs Africa? In an article entitled "China and Africa", Gerald Segal predicted that China, as a rising global power, would be more important to Africa than vice versa, he even surmised that Africa would be the region of least importance to China's foreign policy. However, a review of current Sino-African relations clearly refutes Segal's prophesies. Africa is very important to China (Anshan, 2007, pp. 69-93). China has moved aggressively into Africa, as China needs Africa mainly for its raw minerals and other extractive resources. China is not looking to make loans; China is looking for reciprocal trade (Spector, 2013).

There has been a substantial growth in the relationship between China and Africa (Adisu, et al; 2010, pp. 3-9). China's vastly increased involvement in Africa over the past decade is one of the most significant developments in the region. Akhavan and Sadoddin (2013, pp. 121-124), Adisu, et al. (2010, pp. 3-9) and Muekalia (2004) extol China's foreign policy as one of the cornerstones of Chinese-African relationship which began after the 1955 Bandung Conference where after China cultivated economic, technical, and military support to African countries and liberation movements in an effort to unite with them against both superpowers. Stahl (2009:40) in Akhavan and Sadoddin (2013) advocates that China's presence in Africa can therefore not be considered as a transient and temporary phenomenon as China claims that it looks at Africa as a partner, not a poor continent in need of aid with unnecessary strings attached.

Beijing Consensus

Chinese foreign policy aims are a critical determinant of its investment and foreign aid, since most of its firms are agents of the Chinese government. According to Kaplinsky, McCormick and Morris (2007) in Adusei (2013, pp. 3-9), the Chinese model of investment, known as the "Beijing Consensus" in essence brings economic growth objectives and foreign policy together guiding trade and invests decisions in Africa along with "no strings attached" financial and technical assistance. China's principle of non-interference has served to safeguard China's own sovereign rights.

By offering aid without preconditions, China has presented an attractive alternative to conditional Western aid Tull (2006, p. 459) and gained valuable diplomatic support to defend its international interests, despite a generally asymmetrical relationship differing little from previous African-Western patterns. Chinese foreign policy is rooted in the "Harmonious World Theory", emphasizing the increase of justice in the international system as well as democratizing this system, respecting the rights of the nation-states as well as their sovereignty, considering developing countries' interests.

Chinese Trade Policy

Chinese trade policy, as promised in the Chinese government's Africa Policy paper, would help Africa- "... The Chinese government will adopt more effective measures to facilitate African commodities' access to the Chinese market and fulfil its promise to grant duty-free treatment to some goods from the least developed African countries, with a view of expanding and balancing bilateral trade and optimizing trade structure...."

Foreign Direct Investment

According to Gentle (2012), Adisu, et al. (2010, pp. 3-9) and Brautigam (2003), Chinese investment has been motivated by a desire to access critical resources and Africa's new middle class, yet opting to downplay political issues. Dunning's Eclectic Model best illustrates China's Foreign Direct Investment in Africa, based on three sets of advantages. Firstly, for Multi National Enterprises (MNEs) to compete by producing in another country must have advantages specific to their ownership. Secondly, it must be in the best interest of the firms that have an ownership advantage to transfer resources within their own firms, rather than sell them or the right of use to foreign-based enterprises. Thirdly, to ensure that the location of production is in the best interest of the firm.

Tull (2006, pp. 471) claims that the combined effect of the US-sponsored 2000 African Growth and Opportunity Act (AGOA), and the flexible strategies of Chinese companies contributed to the 'South-South' solidarity. According to Sautman and Hairong (2007), China's profound impact on African economies has the highest return on FDI, ranging from 29% in 1990 to 40% in 2005. Although China's trade with Africa is relatively small compared to US\$1.76 trillion in world trade, it has grown from US\$3 billion in 1995 to US\$55 billion in 2006. It is predicted that Chinese investment will top the US\$100 billion mark by the end of the decade (Taylor, 2006).

Chinese "Predatory" Trade Practices

China's position is unique: it has one foot in the developing world and another in the developed one, with a seat in the United Nations (UN) Security Council. This dual status gives it considerable leverage in the pursuit of its interests. Despite being a decade into the 21st century, Tapscott and Williams (2010, p. 260) and Konings (2007, p. 361) maintain that African states seem to accept the paternalistic Beijing role in preserving their (African) interests in multilateral settings. China is the most active BRICS investor in but Tull (2006, pp. 468-476) offers that China's foreign trade policies are not driven by altruistic motives.

Judging from its increasing influence, China's elite-centred modes of assistance have proven extremely effective. The Chinese have no qualms about making deals with oil-rich dictators, however corrupt they may be. China's diplomacy towards Africa is aimed at cementing a strategic partnership and maintaining sovereign protection. China conceives its investments as goodwill projects to woo the sympathies of African state leaders, enabling it to gain political influence, which often opens the doors to commercially or strategically more attractive businesses in other sectors, e.g. to win tenders for oil and mining concessions. Konings (2013, pp. 363) and Tull (2006, pp. 468-471) highlight that many African political elites appear to regard China as both an appealing economic model worth emulating and a potential catalyst for socioeconomic development. Lucien (2011, pp. 367-370) posits that the Chinese finance grandiose and prestigious buildings (presidential palaces, football stadiums) that African leaders highly appreciate for their own political reasons. Moreover, China is willing to offer what is referred to as a 'total package': cash, soft loans, investments, bribes, technology, the construction of infrastructure and prestige objects, arms sales, political protection from international pressures, using its seat on the UN Security Council and other incentives to bolster their competitive advantage (Konings, 2007, pp. 341-352). In return, Beijing can count on valuable diplomatic support from African governments to defend its interests at the international level, particularly in multilateral organizations with 'one country-one vote' arrangements.

In concluding, Anshan (2007, pp. 69-93) avers that there are many critics of China's absolute adherence to the principle of non-interference, even in the face of human rights violations and political corruption in African countries. China does not consider itself qualified to make

judgments on the domestic affairs of African countries and considers the African Union more qualified to do so.

De-Industrialization and Underdevelopment of Africa

Okpa II (2013) posits that Africa practices “voodoo economics” whereby Africa subsidizes the economies of western nations and now China, paying high interest rates and selling their national resources at a fraction. Sanusi (2013) accuses China as a major contributor to the de-industrialization as well as underdevelopment of Africa, warning governments and policy makers to review Chinese interests in Africa as Africa was “opening itself up to a new form of imperialism”. China as the second biggest economy in the world was no longer a fellow underdeveloped economy, but an economic giant and competitor yet continuing to portray itself as a developing nation at least to African audiences. Gumede (2013, p. 23) contends that China keeps its renminbi artificially undervalued to boost Chinese exports and so power its industrialization and growth. Unfortunately, the cheap Chinese currency hurts other BRICS countries. Gumede urges African countries to respond to this such as subsidies and currency manipulation, which give Chinese exports an advantage.

In the 2000, Beijing Declaration of the China-Africa Cooperation Forum, China, and Africa agreed to establish a “strategic China-Africa axis” for close future cooperation in international affairs, which would result in concrete gains for both sides. In 2006, Beijing hosted the FOCAC China-Africa summit in Beijing had made eight major commitments aimed at strengthening its “strategic partnership” with Africa. In assessing its efficacy, China has implemented almost all of its eight pledges, representing an impressive record of accomplishment, reaffirming its African Agenda”. China has doubled its assistance to Africa through preferential loans and credits; building a headquarters for the African Union; cancelling debts of thirty one (31) poorer African countries totalling some \$1.27 billion; further opening-up of China's markets to more African product; establishing trade and economic cooperation zones in Africa and training African professionals.

Political Motives in African Policy

The promotion of democracy is not an objective of China’s foreign policy, since it does not square with Beijing’s relativistic conception of individual human and political rights of the political elite of the one-party state. This is one of the reasons why Beijing doggedly clings to the dogma of non-interference. Konings (2007, pp. 341-361) maintains that China’s renewed interest in Africa is not only economically motivated but also derives from its political concerns - anti US global hegemony, Taiwan diplomatic space in Africa in recognition of the ‘one-China’ principle.

For some scholars Jaffe and Lewis (2002) and Pan (2006), China’s renewed interest in Africa during the era of neoliberal globalization can be ascribed to a single motive in the relationship, which is the drive to secure energy resources for the country’s rapid economic expansion is behind China’s growing engagement with Africa. In terms of China’s imports from Africa, nine of its ten most important trading partners are resource-rich countries successfully driving home the message that increased Sino-African cooperation will inevitably result in a ‘win-win situation’ for both sides. While this is certainly debatable with respect to Africa and its ordinary citizens as a whole, there can be little doubt that sizeable benefits of China’s return will accrue to state elites.

Finally, food security is a growing concern in the wake of China’s diminished grain output in 2003. The Soviet Union’s humiliating dependence on American and Canadian wheat is a scenario Beijing possibly fears. With a projected increase in population, the loss of vital agricultural land to industry and increasing consumption amongst its urbanizing population, Beijing sees a need to obtain stable sources of key foodstuffs (Lucien; 2011, pp. 367-370).

Consequences of Economic Aid

China’s aid has become particularly attractive to African leaders, precisely because it comes with no conditionality on governance, fiscal probity, and the other concerns of western donors. Between 1960 and 1989, it provided Africa with nearly \$4.8 billion in economic aid, an amount that constitutes almost half of China’s total aid budget during this period.

Table 1 - Sino African Relations (1960-1989)

Chinese aid to Africa in comparative perspective, 1960-89 (in millions of US dollars)	
Region of Chinese Aid	Amount
Africa	4,728
Middle, East and South Asia	4,053
East Asia	514
Latin America	314

Sources: Brautigam (1998:44) and Bartke (1992)

While Africa has been transformed by China's growing presence on the continent, conflict has also surfaced with expanding interaction, particularly with labour practices and market strategies Mohan and Lampert (2012). Currently (2013), more than one million Chinese immigrants live and work on the African continent. Lucien (2011, pp. 367-370) believes that the cohabitation between the Chinese people living in Africa is becoming a source of tension. A frequently heard complaint from Africans is that of the reliance of Chinese firms upon imported Chinese labour for infrastructure projects. The recent resentment against Chinese expatriates in Africa stems from the fact that Chinese companies import a large number of Chinese workers rather than employing locals where levels of employment can reach 70% of the youth, contrary to the needs of economies where unemployment is already a serious problem.

Sino-African Relationship

Ademola (2009, pp. 485-505) and Walters (2013) express that the Sino-African relationship as having provided many benefits to Africa and China alike. China has stressed deepening economic ties with Africa. Africa needs China, not only as a trade partner but also for investments, financial (development) assistance, and cooperation, whereas the presence of China in Africa has enabled African countries to get much-needed infrastructure, even though many of these deals come in the form of minerals-for-infrastructure barter agreements.

China in BRICS

International scholars' according to Hauff (2012, p. 312) express the view that BRICS would be a "toothless tiger" without China as China is mobilizing huge sums in credit grants to developing countries by the China Development Bank and the governmental Export-Import Bank amounted to \$ 110 billion in 2009 and 2010. The usage of the Yuan in international transactions has been increasing at an unbelievable 170% per year (Spector, 2013).

Sanusi (2013) contends that the continent must build infrastructure and invest in education so that African businesses can compete for continental trade as Chinese labour costs rise. Africa must seize the moment and move manufacturing of goods consumed in Africa out of China to the African continent.

GEOPOLITICAL APPROACHES

Tull (2006, pp. 472-476) concludes that in economic terms, BRICS impact on Africa's place in the global economy is palpable. Africa cannot currently compete as an equal with China, a result of which is that its exports to China are largely limited to capital-intensive commodities. This imbalance has the effect of Africa creating jobs in China, while imports from China have undermined job markets in Africa.

China says it looks at Africa as a partner, not a poor continent in need of aid with unnecessary strings attached. While this is the result of legitimate market competition, it contravenes Chinese statements that enhanced Chinese-African interaction always results in win-win situations. On the other hand, the policies of Western governments towards Africa have come to reflect a more normative and reform-oriented edge in recent with US President Barack Obama stating that America's dealing with "Africa was new donor-recipient model that is based on partnership and recognizing that no continent has greater potential or greater upside than the continent of Africa".

Africans should seek a transfer of knowledge, while Africa is in a position to choose; that is before their natural resource dries-up, and its leaders should educate tomorrow's workforce.

NEO-PATRIMONIAL POWER SYSTEM

Many African politicians will sign agreements for a mere million dollars as foreign interests take away billions. Given Africa's leadership of politics at the expense of business, Africa is a playground of politicians whose actions hardly improve the lots of their immediate constituents, instead such leaders become tools used by foreign interests (Okpa II, 2013). The instruments of the African security architecture are not just theoretical.

In interrogating African leaders' acquiescence to BRICS's initiatives in their countries, this paper also evaluated "enrichment without development" against the Neo-Patrimonial Power System. Economic relations with BRICS, under conditions of rampant cronyism, corruption and poor economic governance, is not necessarily about the development of the country and the interests of the poor, but encourages political entrepreneurs to further their interests first before anybody else. Iraj Abedian (2013) argues that's "more often than not, the Chinese are willing to pay bribes to those in office to get whatever business license or favour they require". The Chinese are not apologizing for their activities Wu (2010) and claim that the investments are now more 'market driven' and are willing to work with the African governments and have rejected the criticisms.

Regionalism in Africa is driven by personalized governments, and is often held hostage to the political will of African leaders. Africa's autocratic leaders have only seldom relinquished any of their direct power to supranational organizations and even when they have done so it is seemingly only to hijack these organizations as vehicles for their personal ambitions (Franke, 2007).

In trying to counter this lascivious conduct, "Lions on the move", best describes Africa's dynamic new beginning. Rising young South Africans argue that Zuma's perspective increasingly has "an almost-sepia-toned generational bias built into it". Spector (2013) claims that in their view, "...young people of Africa feel let down by the revolutionary leaders who are looking and treating China with scepticism. They are waiting for their chance to lead better in an age where information, education, and skills are as equal to any place in the developed world. Their 'sense of leadership' betrays the style of always looking for an outside saviour – to rescue, yet again Africa. In the next decade, all the octogenarian leaders are likely to be eliminated either by coup d'état or death and there will see the emergence of new leaders who are born in Africa, educated in the West and want a new renaissance of Africa, on Africa's terms".

Adisu, et al. (2010, pp. 3-9) believe that this relationship is likely to endure since it provides a strong commitment to Africa. It is also attractive because it does not prescribe behavioural outcomes for African leadership.

CONCLUSION

This paper's purpose was to shed some light on the concept of BRICS as an economic superpower and two of its luminary member states' (China and South Africa) internecine competition and its effect on Africa's architecture.

The limitations of this study include its conceptual nature and none of the conclusions has been supported by quantitative or statistical analysis. So, most of the views are clearly those of the authors. Africa has been addressed at the macro level rather than on a country-by-country basis, with the exception of a comparison between Nigeria and South Africa.

Future engagement in South-South cooperation calls for a critical look at global governance institutions to promote a fairer, equal world, greater transparency and accountability and for greater decision-making power for those most directly affected by global challenges, who are often the poorest and most vulnerable people in our world.

The author agrees with the following contributions by Sanwal (2013) and Fakir (2012) that Africa must move the manufacturing of goods consumed in Africa out of China to the African continent. The new framework should look at transformational shifts in growth pathways driven by infrastructure development with a focus on consumption, rather than production. Leadership without the weight of financial capacity

and economic muscle make South Africa vulnerable to counter-strategies from other African rivals including BRICS member nations who all compete equally for Africa's finite resources.

Whilst most African nations have matured in its democratic processes, China's powerful "return to the continent" and the concomitant diversification of Africa's external relations may change the position of African states in the international system. However, in political terms, China's patronization may well decide future Africa's future in either Beijing or Washington with the reality of South Africa having little to offer other than posturing.

REFERENCES

- Ademola, O. T. (2009). China–Africa Trade Relations: Insights from AERC Scoping Studies. *European Journal of Development Research*, 21(September), 485-505.
- Adisu, K., Sharkey, T., & Okoroafo, S. C. (2010). The Impact of Chinese Investment in Africa. *International Journal of Business and Management*, 5(9), 3-9.
- Adusei, A. (2013). *Nigeria - A Declining Regional Power?* Nairobi, Kenya: The African Executive.
- Akhavan, S., & Sadoddin, S. (2013). EU-Chinese Security Cooperation in Africa . *Journal of US-China Public Administration*, 10(2), 121-135.
- Amanor, K. S. (2013). *South-South cooperation in context: Perspectives from Africa*. Brighton (UK): Future Agricultures - University of Sussex.
- Anshan, L. (2007). China and Africa: Policy and Challenges. *China Security (World Security Institute)*, 3(3), 69 – 93.
- Benkenstein, A. (2011). Africa's natural resources: scrambling for success,. *South African Journal of International Affairs*, 18(2), 271-274.
- Brosig, M. (2011). Overlap and interplay between international organisations: theories and approaches. *South African Journal of International Affairs*, 18(2), 147-167.
- Burrows, T. (2013). *Nudging African development forward*. Johannesburg: Mail and Guardian.
- CDKN. (2013). *Another BRIC in the wall? South Africa's developmental impact and contradictory rise in Africa and beyond*. Retrieved April 12, 2013, from <http://cdkn.org/resource/another-bric-in-the-wall-south-africas-developmental-impact-and-contradictory-rise-in-africa-and-beyond/>
- Donnelly, L., & Benjamin, C. (2013). *China and SA cement relationship*. Johannesburg: Mail and Guardian (Business).
- Esiemokhai, E. O. (2013). *Laying the theoretical and practical foundations for a new world economic order*. USA: Questia.
- Fakir, S. (2012). *BRICS and IBSA: Friend and Foe Alike*. Johannesburg: The South African Civil Society Information Service. Retrieved July 3, 2012, from <http://sacsis.org.za/site/article/1350>.
- Fakir, S. (2013). *The BRICS Bank and World Dominance: How Real Is This?* Johannesburg: The South African Civil Society Information Service.
- Ferrando, T. (2013). *BRICS Grab African Land And Sovereignty*. MA (USA): ZNet.
- Franke, B. F. (2007). Competing Regionalisms in Africa and the Continent's Emerging Security Architecture. *African Studies Quarterly - The Online Journal for African Studies* , 9(3), www.africa.ufl.edu.
- Fraser, J., & Dube, M. (2013). *Resentment as South Africa speaks business for continent*. Johannesburg: Inter Press Service.

- Fuchs, C. (2010). New imperialism : Information and media imperialism? *Global Media and Communication* , 6(1), 33–60.
- Gentle, L. (2012). *The Root of All Evil? The Dollar, the BRICS and South Africa*. Johannesburg: The South African Civil Society Information Service.
- Gigaba, M. (2013). *South Africa needs to forge partnerships with Africa* . Johannesburg: City Press.
- Gumede, W. (2013). *Complicated relationship holds BRICS back*. Johannesburg: Mail and Guardian (Comment and Analysis).
- Hauff, P. (2012). *BRICS without mortar - Edition Number 9* . Germany, Europe: D+CE+Z.
- Konings, P. (2007). China and Africa : Building a Strategic Partnership . *Journal of Developing Societies* , 23, 341-367.
- Lucien, N. N. (2011). China's promises to Africa. *African Journal of Political Science and International Relations*, 5(7), 367-370.
- Lund, T. (2013). *South Africa in Brics - Are we making the most of it? - Trading up*. Johannesburg, South Africa : Financial Mail.
- Ma, W., Zhou, S., & Chen, S. (2012). *China Offers Africa Billions in New Loans: Beijing, Seeking Stronger Economic Relations With the Resource-Rich Continent, Pledges to Address Trade Imbalances*. New York, USA:
Wall Street Journal. Retrieved July 20, 2012, from
<http://online.wsj.com/article/SB10000872396390444464304577536140647257710.html>
- Naidu, S. (2013). *Bank on it being open for discussion*. Johannesburg: Mail and Guardian.
- Oberholzer, R. (2011). *SA's dominance in Africa on the wane, warns economist*. Johannesburg: Mail and Guardian. Retrieved July 13, 2011, from <http://mg.co.za/article/2011-07-13-sas-dominance-in-africa-on-the-wane-warns-economist>
- Okpa II, E. (2013). *Africa Investment Returns and Growth: Real or Hype?* Nairobi, Kenya: The African Executive.
- Okpa II, E. (2013). *US Africa Relations - The Missing Link*. Nairobi, Kenya: The African Executive.
- Plato, O. O. (2013). *Africa's Bright Side Must Be Highlighted*. Nairobi, Kenya: The African Executive.
- Putin, V. (2013). *BRICS - Russia Open for Investment*. Nairobi, Kenya: The African Executive.
- Sanusi, M. S. (2013). *China is major contributor to Africa's de-industrialisation* . New York: Financial Times.
- Sanwal, M. (2013). *BRICS and stepping stones: a new global pattern*. New Delhi, India: The Institute for Defence Studies and Analyses (IDSA).
- Schraeder, P. (2004). *African Politics and Society: A Mosaic in Transformation* (2 ed.). Belmont, CA: Thomson-Wadsworth.
- Soko, M., & Qobo, M. (2010). *South Africa and the BRICs - A Crisis of Identity in Foreign Policy* . Pretoria: South African Institute of International Affairs (SAIIA) .
- Spector, J. B. (2013). *Does Jacob Zuma really hate the West?* Johannesburg: Daily Maverick. Retrieved March 14, 2013, from <http://www.dailymaverick.co.za/article/2013-03-14-does-jacob-zuma-really-hate-the-west/#.UUGQITffdu6>
- Takhal, A. (2013). *China vs America - Which Way for Africa?* Nairobi, Kenya: The African Executive.

- Tapscott, D., & Williams, A. D. (2010). *Macrowikinomics - Rebooting Business and the World*. London, Great Britain: Atlantic Books .
- Tull, D. M. (2006). China's engagement in Africa: scope, significance and consequences. *The Journal of Modern African Studies*, 44(3), 459-479.
- UNDP . (2013). *Human Development Report 2013: A more global South - (Chapter 2)*. Washington, USA: United Nations.
- UNDP. (2013). *Human Development Report 2013 - The Rise of the South: Human Progress in a Diverse World*. New York, USA: United Nations Development Programme.
- Volchkova, N., & Ryabtseva, M. (2013). *Russia–South Africa Relations: Collaboration in BRICS and the G-20 - Occasional Paper Number 135*. Braamfontein, South Africa : South African Institute of International affairs.
- Walters, D. (2013). *Does Africa need China?* Murrayfield, Pretoria: Africa Consulted. Retrieved March 11, 2013, from <http://consultancyafricablog.com/2013/03/11/does-africa-need-china/>
- Zhu, Xiao-ning. (2012). *New Frontiers in Public Administration: Practice and Theory - Foreward. Proceedings of 8th International Conference on Public Administration. 1*. Hyderabad, India: University of Electronic Science and Technology of China Press (UESTC Press).
- Zuma, J. (2013). *Presidential Address: Heads of Mission Conference*. Pretoria: GCIS - SANews.

EMPLOYEE PERCEPTIONS OF TALENT MANAGEMENT PRACTICES IN LOCAL GOVERNMENT INSTITUTIONS

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ABSTRACT

Talent Management is a concept increasingly on the minds of managers and practitioners, but still remain neither a strategic or operational priority in many organisations. The main objective of this research is to determine employee perceptions (N=518) of the applications of Talent Management Practices in South African local government institutions. The results showed that talent management practices are applied below average in the organisations. Large gaps exist between the current applications versus the importance of talent management practices. Significant differences exist between the employee perceptions of talent management practices based on their demographic characteristics.

INTRODUCTION

Talent Management is a concept increasingly on the minds of managers and practitioners as it becomes more difficult to attract, develop and retain talented employees in a fierce competitive business world. This situation is problematic in the South African context as The Global Competiveness Report continues to rank the country low in terms of labour market efficiency and people development. Horvathova and Davidova, (2011) cites Mikusova (2008) who maintains that without a skilled workforce no organisation will be able to keep up with competition and survive in an ever changing business world. Talent Management is thus of strategic importance for emerging markets such as South Africa (Kaye & Smith, 2012; Tarique & Schuler, 2010; Tymon, Stumpf & Doh, 2010). Recent research by the Human Capital Institute of South Africa shows that only 57% of the companies surveyed have a department formally referred to as Talent Management (Human Capital Institute of South Africa, 2011). The results of the survey further showed that more than half of the companies indicated that it is difficult to implement Talent Management Practices.

The main objective of this research is to determine employee perceptions of the applications of Talent Management Practices in South African local government institutions. More specifically the research aims to determine first the current application of the talent management practices and the importance thereof. Furthermore this research also aims to determine whether a significant gap exists between the current applications versus the importance of Talent Management practices. Finally this research also aimed to investigate whether significant differences exist between the respondents' perceptions of Talent Management Practices based on their biographic characteristics.

TALENT, TALENT MANAGEMENT AND TALENT MANAGEMENT PRACTICES

The field of Talent Management is still enshrouded with a thick veil of confusion. First and foremost several scholars debate who we should regard as our "talent" in organisations. One line of research argues that a talented employee represents an extraordinary efficient individual with high potential who can make a significant contribution to an organisation's success. Other researchers maintain that everyone in an organisation that contributes to its objectives can be regarded as a talented employee (Horvathova & Davidova, 2011). The first definition thus reserve the term "Talent" for "high-value staff and/ or high potentials, in contrast to 'inclusive' perspective where 'talent' is merely a synonym for 'staff' (Iles, Preece & Chuai, 2010).

The available literature also shows that researchers differ greatly in their understanding of Talent Management (McDonnell, Lamare, Gunnigle & Lavelle, 2010). Moreover Huang and Tansley (2012) maintain that talent management seem to be a highly contentious issue that requires further examination. Tarique and Schuler (2010, p. 124) provides a broad definition of Talent Management which refer to a “systematic utilisation of HRM practices and policies to attract, develop and retain individuals with high levels of human capital consistent with the strategic directions of the organisation.” This requires an understanding of what core talent means, and how to leverage the talent in a manner that allows organisations to act decisively to attract, retain, and develop talent as well as secure the future success of organisations in South Africa (Stanz, & Barkhuizen & Welby-Cooke, 2012).

METHOD

A quantitative research approach was followed. The sample consisted of employees (N=518) from various local government institutions in South Africa. An adapted version of the Human Capital Index (Human Capital Institute, 2008) was administered. The HCI consisted of 41 items and measure nine Talent Management Practices: Management Commitment, Talent Review Process, Workforce Planning, Staffing, Talent Acquisition, Talent Commitment, Talent Development, Performance Management and Talent Retention. This measure makes use a dual scale. Respondents are first requested to evaluate the current application of Talent Management practices in the organisation on a five-point Likert scale ranging from Poor (1) to Excellent (5). Second the respondents are required to indicate the importance of the Talent Management practices on a five-point scale ranging from Not (1) to Critica (5). Data analyses were done with the aid of SPSS 20.

RESULTS

Table 1 below reports the results of the respondents’ perceptions of the current application of talent management practices in their organisation.

Table 1 Current Application of Talent Management Practices

	Mean	Std. Deviation	Cronbach Alphas	Rank
Management Commitment	2.7486	.96495	.894	7
Talent Review Process	2.7243	.89606	.864	8
Workforce Planning	2.7699	.82768	.845	6
Staffing	2.9570	.77464	.695	3
Talent Acquisition	3.0053	.77923	.738	2
Talent Commitment	3.1766	.76472	.747	1
Talent Development	2.8988	.84850	.824	4
Performance Management	2.7815	.82004	.817	5
Talent Retention	2.4865	.92073	.826	9

The results in Table 1 show that the respondents perceived that most of the talent management practices are applied below average in their organisations. The Talent Management practices that seem to be most problematic include Talent Retention, Talent Review Processes, Management Commitment and Workforce Planning. Next the results of the importance of the Talent Management practices as viewed by the respondents are reported.

Table 2 Importance of Talent Management Practices

	Mean	Std. Deviation	Cronbach Alphas	Rank
Management Commitment	3.6884	.97757	.926	7
Talent Review Process	3.6309	.91932	.894	8
Workforce Planning	3.5745	.95239	.914	9

Staffing	3.7592	.81216	.825	4
Talent Acquisition	3.7973	.81240	.840	3
Talent Commitment	3.8813	.79721	.842	1
Talent Development	3.8042	.90324	.897	2
Performance Management	3.7112	.91706	.892	6
Talent Retention	3.7230	.99879	.856	5

The results in Table 2 show that the respondents view all the listed Talent Management practices as important. The practices listed as most important include Talent Commitment, Talent Development and Talent Acquisition. Table 3 and Graph 1 reports the comparison between the current versus the importance of Talent Management Practices.

Table 3 Current versus Importance of Talent Importance of Talent Management Practices

	Current	Important	Gap
Management Commitment	2.749	3.688	-0.940
Talent Review Process	2.724	3.631	-0.907
Workforce Planning	2.770	3.575	-0.805
Staffing	2.957	3.759	-0.802
Talent Acquisition	3.005	3.797	-0.792
Talent Commitment	3.177	3.881	-0.705
Talent Development	2.899	3.804	-0.905
Performance Management	2.781	3.711	-0.930
Talent Retention	2.486	3.723	-1.236

Graph 1: Current versus Importance of Talent Management Practices

The results in Table 3 and Graph 1 show that large gaps exist between the current versus the importance of Talent Management Practices. The largest gaps were observed between Talent Retention practices, talent review processes and performance management.

The Manova analyses between Demographic Variables and current Talent Management Practices are reported in Table 4 below.

The results in Table 4 shows that significant differences exist between the respondents' perceptions of Talent Practices based on their job level and years of work experience. Further posthoc analyses revealed no significant differences between talent management practices and the respondents based on their job level.

The Wilks' Lambda for work experience is equal to 0.878 [$F(36, 1894.206) = 1.866, p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0.025, showed that the respondents differed in terms of their perceptions of Management Commitment ($F_{(3, 518)} = 4.039, p \leq 0.05$, partial $\eta^2 = .023$), Talent Acquisition ($F_{(3, 518)} = 3.726, p \leq 0.05$, partial $\eta^2 = .021$), Talent Commitment ($F_{(3, 518)} = 3.486, p \leq 0.05$, partial $\eta^2 = .020$) and Talent Retention ($F_{(3, 518)} = 2.962, p \leq 0.05$, partial $\eta^2 = .017$). The results showed that the respondents employed for more than 30 years in their organisation experienced less Management Commitment towards Talent Management practices than those employed between 0 to 10 years in their organisation. Respondents employed between 0 to 10 years in their organisation experienced less talent acquisition than those employed between 11 and 20 years in their organisation. Respondents employed between 0 to 10 years in their organisation also experienced less Talent Commitment than those employed between 20 and 30 years in their organisation. Finally respondents employed between 0 and 10 years experienced more talent retention strategies than those employed for more than 30 years in their organisation. The effects however were small.

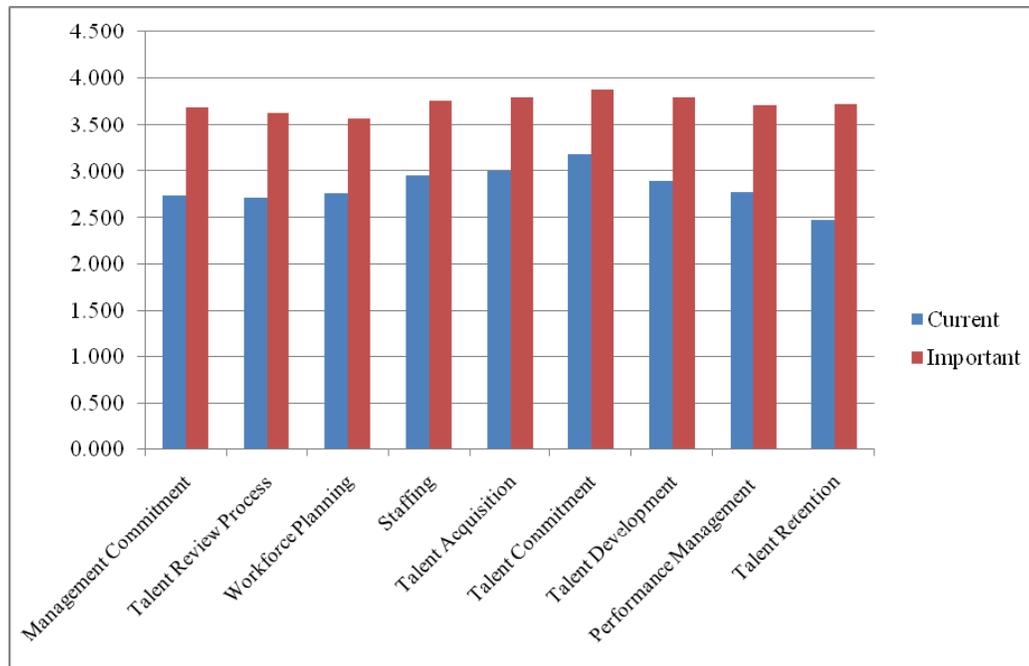


Table 4: Manova Analyses: Demographic Variables and Talent Management Practices

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.960	1.169 ^b	18.000	1014.000	.280	.020
Age	.913	1.289	36.000	1894.206	.117	.022
Job Level	.878	1.866	36.000	1894.206	.001	.032*
Qualifications	.947	1.026	27.000	1478.423	.427	.018
Years Experience	.859	2.933	27.000	1478.423	.000	.050*

The Manova analyses between Demographic Variables and the importance of Talent Management Practices are reported in Table 5 below.

Table 5: Importance of Talent Management Practices

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Gender	.984	.457 ^b	18.000	1014.000	.975	.008
Age	.905	1.425	36.000	1894.206	.049	.025*
Job Level	.928	1.066	36.000	1894.206	.364	.019
Qualifications	.964	.684	27.000	1478.423	.887	.012
Years Experience	.910	1.803	27.000	1478.423	.007	.031*

The results in Table 5 shows that significant differences exist between the respondents' perceptions of Talent Practices based on their age and years of work experience.

The Wilks' Lambda for job level is equal to 0.905 [$F(36, 1894.206) = 1.866, p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025, showed that the respondents differed in terms of their perceptions of Management Commitment ($F_{(3, 518)} = 2.342, p \leq 0,05$, partial $\eta^2 = .018$), Talent Review Process ($F_{(3, 518)} = 3.647, p \leq 0,05$, partial $\eta^2 = .028$), Workforce Planning ($F_{(3, 518)} = 3.751, p \leq 0,05$, partial $\eta^2 = .028$), Staffing ($F_{(3, 518)} = 3.676, p \leq 0,05$, partial $\eta^2 = .028$), Talent Acquisition ($F_{(3, 518)} = 3.441, p \leq 0,05$, partial $\eta^2 = .026$), and Talent Development ($F_{(3, 518)} = 2.791, p \leq 0,05$, partial $\eta^2 = .021$). The results showed that the respondents aged between 20 and 29 years regarded Management

Commitment and Talent Development more important than the respondents aged between 40 to 49 years. Respondents aged between 20 and 29 years regarded Talent Review Processes, Workforce Planning, Staffing and Talent Acquisition as more important compared to respondents aged between 30 and 39 years and 40 and 49 years.

The Wilks' Lambda for work experience is equal to 0.910 [$F(27, 1478.423) = 1.803, p \leq 0.05$]. Analysis of each dependent variable, using a Bonferroni adjusted alpha level of 0,025, showed that the respondents differed in terms of their perceptions of Management Commitment ($F_{(3, 518)} = 5.089, p \leq 0,05$, partial $\eta^2 = .029$), Talent Development ($F_{(3, 518)} = 3.926, p \leq 0,05$, partial $\eta^2 = .022$) and Talent Retention ($F_{(3, 518)} = 4.599, p \leq 0,05$, partial $\eta^2 = .026$). The results showed that respondents employed between 0 to 10 years regarded Management Commitment, Talent Development and Talent Retention as significant more important than those employed between 11 to 20 years in their organisations.

CONCLUSION

This research provided some important empirical information on the current state of Talent Management practices in local government institutions. From the results it was clear that talent management practices are applied below average in their organisations with Talent Retention, Talent Review Processes, Management Commitment and Workforce Planning practices the most problematic. Further results also showed that large gaps exist between the current applications versus the importance of talent management practices in the organisation. The largest gaps were observed between Talent Retention practices, talent review processes and performance management. The Manova analyses also showed that organisations should take cognisance of the talent management of different generations in organisations and their tenure in the organisation.

In conclusion this research contributed to the limited empirical knowledge that currently exists on Talent management in the South African context. The research highlighted the importance of the effective management of talented employees and the outcomes thereof for employees and the organization. Therefore it is recommended that the local government institutions revisit their Talent Management practices as it has important implications for both the individual and the institution.

REFERENCES

- Horvathova, P., & Davidova, M. (2011). Application of Talent Management with the use of Information and Communications Tecnology in the Czech Republic and Other Developing, Emerging and Transitions Economies. *World Academy of Science, Engineering and Technology*, 80, 458-465.
- Huang, J., & Tansley, C. (2012). Sneaking through the minefield of talent management: the notion of rhetorical obfuscation. *International Journal of Human Resource Management*, 23, 3673-3691.
- Human Capital Institute (2011). Talent Management Stakeholder Survey.
- Human Capital Institute (2008). Human Capital Assessment of Talent Management Practices.
- Iles, P., Preece, D., Dhui, X. (2010). Talent management as a management fashion in HRD: towards a research agenda. *Human Resource Development International*. 13, 125-145.
- Kaye, B. & Smith, C.P. (2012, January). Career Development: Shifting from Nicety to Necessity. *Training & Development*, 52-55.
- McDonnell, A., Lamare, R., Gunnigle, P., & Lavelle, J. (2010). Developing tomorrow's leaders – Evidence of global talent management in multinational enterprises. *Journal of World Business*, 45, 150-160.
- Magolego, H. (2013). *The relationship between talent management, job satisfaction and job performance of employees in a local government institution*. Unpublished Masters Dissertation, North-West University, South Africa.
- Mpofu, L. (2013). *The relationship between talent management, productive organisational energy and intention to quit of employees in a local government institution*. Unpublished Masters Dissertation, North-West University, South Africa.

Mtila, J. (2013). *The relationship between talent management, psychological contract and intention to quit of employees in a local government institution*. Unpublished Masters Dissertation, North-West University, South Africa.

Stanz, K.J., Barkhuizen, E.N., & Welby-Cooke, G. (2012, July). *Talent Mindset of Leaders in the South African Aviation Industry*. Paper presented at the 30th International Congress of Psychology, Cape Town.

Tarique, I. & Schuler, R.S. Global Talent Management: Literature Review, integrative framework and suggestions for further research. *Journal of World Business*, 45, 122-133.

Tymon, W.G., Stumpf, S.A., & Doh, J.P. (2010). Exploring talent management in India: The neglected role of intrinsic rewards. *Journal of World Business*, 45, 109-121.

Veldtman, G. (2011). *The relationship between talent management and intention to quit of employees in a electricity supply company*. Unpublished Masters Dissertation, University of Pretoria, South Africa.

CO-EFFECT OF CULTURE AND PERSONALITY TRAITS ON BUSINESS SUCCESS OF SOUTH AFRICAN ENTREPRENEURS

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ABSTRACT

This study investigated the co-effect of entrepreneurial traits and culture on business success and proposes recommendations for entrepreneurial success. The research question under investigation is: "Can distinctive entrepreneurial traits and cultural elements be identified that will predict entrepreneurship success in South Africa?" The survey research method was used and data was collected from South African entrepreneurs through standardized questionnaires. The main findings revealed that business success is dependent on personality traits and culture, and the findings and conclusions may assist South African entrepreneurs, and others to be successful in South Africa.

INTRODUCTION

Various studies have attempted to determine the influence of either personality traits (Timmons, 2007); or culture (Peltokorpi & Froese, 2011; Davidsson & Wiklund, 1997) on business success. However, little research, has been done on the combined effects and predictive value of personality traits of the entrepreneur and culture on business success, despite the fact that literature acknowledges that the entrepreneur, the type of venture and the environment are crucial determinants of business success (Trevisan, Grundling & De Jager, 2003). This article will attempt to explore the co-effect of personality traits of the entrepreneur and culture on business success in a developing country, namely South Africa. When researching the entrepreneur as an individual, particularly interested in establishing whether identifiable personality characteristics, that drives the decision to enter into entrepreneurship and be successful, exist. Numerous literature focus on the personality of an entrepreneur, by identifying specific traits that characterise an entrepreneur. The personality traits most frequently cited as being characteristic of the entrepreneur include the desire for independence (Collins & Moore, 1964), locus of control (Brockhaus & Horwitz, 1986), creativity (Wilken, 1979), risk-taking propensity (Rauch & Frese, 2005), and credible role models (Bygrave, 1995). Unfortunately, these traits identify an entrepreneur's personality characteristics and its influence on new-venture formation and are not related to new-venture performance (Dvir, Sadeh & Pines, 2006). Perhaps the absence of a link between personality traits and new-venture performance could be attributed to the fact that personality traits are not linked to specific tasks undertaken to achieve venture performance. It is extremely difficult to demonstrate a causal relationship between personality traits and entrepreneurial behaviour and success (Cooper, Dunkelberg & Woo, 1988). Borman and Motowidlo (1997) are the only scholars who have been able to indicate that personality factors contribute more strongly to contextual performance – performance in a specific environment - than to task performance.

LITERATURE REVIEW

In this research the Grid Group Cultural theory of Douglas (1970) and the Five-Factor theory of McCrae and Costa (1987) was used as theoretical framework. A brief description of their respective evolutions and the nature of each theory are described below.

THE ESSENCE OF PERSONALITY TRAITS

Portraying a person's personality, is generally done by utilizing expressions of particular facets of personality, known as traits. *A personality trait is a hard-wearing temperament to conduct in a specific way, in an array of situations* (Weiten & Lloyd, 2006). A distinction can be made between common and

individual traits. A **common trait** is a temperamental aspect that is common to numerous people. Traits that come out to some degree within every person are sociability and fierceness. However, **individual traits** are traits that are confined to the individual only (Nicholas, 2003). In this research, only the common traits that entrepreneurs share in the cultural environment of South Africa will be analyzed.

Most trait theories of personality, such as Gordon Allport's trait theory (1937, 1961) and Raymond Cattell's factor analytic trait theory (1950, 1966) presume that a number of traits are more influential than others. Following on this view a small number of basic traits determines other, more outward traits. Hans Eysenck's, cited by Halonen and Santrock (1993), personality model suggested two dimensions (as opposed to traits) of **neuroticism-stability** and **extraversion-introversion**. Afterwards, he expanded the model by adding **psychoticism** as a third dimension. **Extraversion** implies being unsubmitive, energetic, active and lively. **Neuroticism** incorporates being nervous, temperamental, and low in self-esteem. **Psychoticism** involves being egotistic, impetuous, cold and unsociable. Eysenck put forward the theory that the most important personality traits were determined mainly by a person's genes (Nicholas, 2003; Caligiuri & Tarique, 2012).

Eysenck's model was a forerunner to the 'five-factor' theory designed by Costa and McCrae (1992, 1995) which was utilized in this research. Recently, McCrae and Costa (1987, 1997, 1999) maintained that the broad mainstream of personality traits should be known as the five higher-order traits that in turn should be known as the "big five". These are: extraversion, neuroticism, openness to experience, agreeableness and conscientiousness (Weiten & Lloyd, 2006). Following the same order, the big five traits are defined:

Extraversion. Extraversion is defined as the tendency to behave vigorously within the social and material milieu and includes traits such as sociability, activity, assertiveness and positive emotionality (John & Srivastava, 1999; Migliore, 2011). People who score high on extraversion are characterized as outgoing, sociable, upbeat, friendly, assertive and gregarious (Watson & Clark, 1997). Those who score at the opposite end of this personality dimension are characterized as quiet, reserved, retiring, and unassuming (Nicholas, 2003). Bad management performance increases the risk of entrepreneurial failure. Hence, extraversion may promote trait adjustments such as developing leadership virtues (Judge, Ilies & Gerhardt, 2002), that allow entrepreneurs to do better at tasks related to management in pioneering firms (Barrick & Mount, 1991). As a result, improved management performance associated with extraversion could assist to avoid entrepreneurial failures. Higher extraversion may lead to meting out trait adjustments that are useful in team and dyadic relationships (Mount, Barrick & Stewart, 1998). Therefore, extraverted entrepreneurs that run pioneering ventures are probably less likely to fail because of interpersonal problems (Barrick, Mount & Judge, 2001).

Neuroticism. People who score high in neuroticism tend to be anxious, hostile, self-conscious, insecure, and vulnerable (Migliore, 2011). Like extraversion, this trait has been the subject of thousands of studies. In some trait models it is called *negative emotionality* (Church, 1994). The people who score low in neuroticism tend to be unemotional, calm, secure, relaxed (Nicholas, 2003). The practice of neurotic individuals to be annoyed and to have negative emotions (Lahey, 2009) may be not advantageous with admiration to interactions with other stakeholders (Barrick, Mount & Judge, 2001). Thus neuroticism is expected to develop interpersonal problems. Consequently, efficient team decisions might be held back by neurotic entrepreneurial team members, ending in failure.

Openness to experience. Openness is associated with curiosity, flexibility, vivid fantasy, imaginativeness, artistic sensitivity and unconventional attitudes. Citing evidence that openness fosters liberalism, McCrae and Costa (1996) asserts that this trait is the key determinant of people's political attitudes and ideology. Those who score at the opposite end of this personality dimension are characterized as conventional, predictable and unimaginative (Nicholas, 2003).

Agreeableness. Those who score high in agreeableness tend to be sympathetic, trusting, cooperative, modest, and straightforward. People who score at the opposite end of this personality dimension are characterised as suspicious, antagonistic, and aggressive. Agreeableness may have its roots in childhood temperament and appears to promote altruistic (helping) behaviour in social interactions (Graziano & Eisenberg, 1997). Agreeableness may assist to obtain personal adjustments that partially make plans for transformational leadership (Bono & Judge 2004), which probably improves work inspiration, job contentment and the fulfilment of staff member needs. Thus, inspiration, contentment and fulfilment of needs may result in entrepreneurs feeling a high sense of belonging and attachment to a business that provides a personal impetus to the success of the business and a personal guard against its failure. Agreeableness relates negatively to innovative firm failure. The propensity of agreeable entrepreneurs is to

be impartial (Ekehammar & Akrami, 2007), for example with management team members, customers, employees or financiers, perhaps eases attempts to raise funds, making efficient decisions, or perform lucrative deals, and hence reduce business failure chances.

Conscientiousness. Conscientiousness people tend to be diligent, disciplined, well organised, punctual, and dependable. Referred to as *constraint* in some trait models, conscientiousness is associated with higher productivity in a variety of occupational areas (Hogan & Ones, 1997). The people who score lower in conscientiousness tend to be careless, aimless, and unreliable (Nicholas, 2003). A small number of traits for personality and entrepreneurship success like: sturdiness, independence, influence are very similar to traits that connect with conscientiousness. Conscientiousness can be typical of the entrepreneur according to Howard and Howard (1995). Traits such as organised and methodical (Goldberg, 1990, p. 1216-1229), realistic (Saucier, 1994, p. 506-516) can be significant for entrepreneurship success. Conscientious entrepreneurs perform poorly because they stress task accomplishment rather than gaining economic rewards (Stewart, 1996).

GRID GROUP CULTURAL THEORY

The cultural environment defines the parameters for contextual performance and also shapes the personality traits of an entrepreneur through the process of learning. Barnouw (1979, p. 5) defined culture as "...the configuration of stereotyped patterns of *learned behaviour* which are handed down from one generation to the next through the means of language and imitation...". Kroeber and Parson's (1958, p. 583) earlier cross-disciplinary definition of culture included "...patterns of *values*, ideas, and other symbolic-meaningful systems as factors in the shaping of *human behavior*". Hofstede (1980, p. 25) referred to culture as "the collective programming of the mind which distinguishes the members of one human group from another ... and includes systems of *values*". The Grid Group theory of Douglas (1970, p. 2) used in this research defined culture as "the creation of classifying processes". In brief, grid/group theory asserts that any community (group, organization, society) can be thought of in terms of two types of societal controls: (a) membership within surrounded social groups (group) and (b) restriction by outwardly enforced regulations (grid). These aspects address "two vital and constant questions of human existence: "who am I?" and "Which way should I behave?" (Schwarz & Thompson, 1990, p. 6). The notion of *group* addresses identity (Am I a member of an existing social unit or do I form my own social group?), whilst *grid* addresses behaviour (Are my social circumstances limited by far-reaching rules or do I have the freedom to bargain my own behaviour?).

Sociologists (Kemper & Collins, 1990) understand that Douglas's two dimensions are dimensions of power (grid) and status (group) and consequently vital variables for sociological analysis. The extent of pecking order or ranking within groups is indicated power or grid, whilst status or group connects to the extent of "emphasis on restrictions between the society and outsiders" (Kemper & Collins, 1990, p. 47). High grid is equal of "caste-as inflexibility", whilst high group shows the notion of a person's loyalty to a group. Here group membership determines identity.

The Grid-Group theory results in four main grid/group configurations representing four distinct national cultures expressed by Figure 1.

Figure 1: The descriptions of attitudes toward nature in each of the quadrants are drawn from Schwarz and Thompson (1990)

Grid	Isolated Culture (Fatalism) <i>(Freedom because of loneliness, individuals not taken seriously, repute for apathy, blame fate)</i>	Positional Culture <i>(Roles are attributed, strict hierarchy, controlled behavior, encourages custom and command, expects loyalty, blame deviance)</i>
	Individualistic Culture <i>(Competition, positions attributed by merit, excellence, committed to private benefit, no commitment to group, respects wealth and power, blame incompetence)</i>	Enclave Culture <i>(Avoid individual defection, avoid group division, hold up boundaries, focus on core society, egalitarian, regulating through ranking and ordering, blame the system)</i>

Group

THE ENTREPRENEUR-VENTURE-CULTURAL ENVIRONMENTAL FIT

The concept of Entrepreneur-Venture-Cultural Environmental fit signifies that in order to be like a fish in water, the entrepreneur, the venture and the culture and the environment should go hand in hand in order to favour new venture success. The congruence between the cultural context and the entrepreneurs will be examined. If an entrepreneur operate in an environment that does not hinder entrepreneurship and foster entrepreneurial behaviour, a good entrepreneur-venture-cultural environmental fit exist.

PROBLEM DESCRIPTION AND STATEMENT

Previous research in entrepreneurship has examined either the traits of individuals or entrepreneurs to be or the external environment. Researchers argued whether research should concentrate on the personality traits theory approach or the external environment. However, the personality traits are relevant to the immediate environment of the entrepreneur. In addition, research on entrepreneurial success based on a personality trait theory approach within a specific cultural setting has never been applied in an innovative way in order to improve entrepreneurs shape and decrease the rate of failure. For this reason the researcher decided to investigate how the findings of this research can be applied in the construction of a model for entrepreneurial development in Southern African countries.

Based on the above articulations, the research questions is: **‘Could distinct entrepreneurial traits and cultural elements be identified that will predict entrepreneurship success in South Africa?’** Following on the main research question, two sub-questions were formulated, namely, (i) What are the entrepreneurial traits that are deemed important in South Africa? and (ii) What are the entrepreneurial traits that predict business success in the South African culture?

HYPOTHESIS FORMULATION

The researchers formulated the following general hypothesis for each combined cultural dimension (isolated culture, individualistic culture, enclave culture and positional culture) and personality trait (extraversion, neuroticism, agreeableness, conscientiousness and openness to experience):

H₀: Culture_i and personality trait_i has no influence on business success in South Africa

H_A: Culture_i and personality trait_i has an influence on business success in South Africa

The testing of this hypothesis is based on the assumption that the population in South Africa possess a particular culture and that different personality traits contribute to business success. If the alternative hypothesis will be accepted in both cases, the hypothesis can be assumed that both personality characteristics and culture determines business success. All hypotheses will be tested at the significant level of 0.01 ($p = 0.01$).

METHODOLOGY

A quantitative research design was followed. The study population consisted of 7614 entrepreneurs representing 14 economic sectors in South Africa. A samples of entrepreneurs owning small businesses and operating in the formal business sector were proportionately drawn from the database SAyellow using province, business sector and business size as stratification criteria. Within each strata, convenient sampling was used to distribute 100 standardized questionnaires. Only 67 questionnaires were returned, indicating a 67% response rate, which the researchers found to be consistent with expectations of viable response rates. Data was collected using the 100-item International Personality Questionnaire (Goldberg, 1999) and the Grid-Group questionnaire. The instruments have been used to measure dimensions of personality and culture in several countries. Five major dimensions of personality namely extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience were evaluated. The questionnaire contained four sections. Section A consisted of biographical items, section B business related information, section C, the Grid-Group Cultural Questionnaire (consisting of 20-items) and section D, the 100-item International Personality Questionnaire. The returned questionnaires were checked for completeness. Questionnaires with more than two missing responses on the demographic, business related information, cultural profile and five-factor model scales were rejected. In total 67 respondents were included in the analysis. SPSS v.21 was used

to analyze data. Due to the categorical nature of the data and the simple random sampling nature of the study, the data analysis was conducted using marginal probability, probability tree and simple descriptive statistics. Coding was done according to the prescribed guidelines of the 100-item International Personality Questionnaire and the Grid-Group Questionnaire.

RESULTS

Personality Traits

The personality traits of respondents were determined by summing all the values assigned by respondents to each trait to obtain total trait scores for the sample. The personality dimension with the highest aggregate was considered to be the most dominant, the second highest score was indicative of the second most important dimension, while the lowest score was indicative of the least prevalent personality trait in the selected sample.

Table 1: An entrepreneurial personality trait profile

CULTURAL ENVIRONMENT	ENTREPRENEURIAL PERSONALITY TRAIT PROFILE OF RESPONDENTS									
	Extraversion		Neuroticism		Agreeableness		Conscientiousness		Openness to experience	
South African cultural origin (N=67)	Total score	Rank	Total score	Rank	Total score	Rank	Total score	Rank	Total score	Rank
		4609 3.44	4	4394 3.28	5	5166 3.86	2	5321 3.97	1	5050 3.77

Table 1 shows that the personality traits in sequence of importance are conscientiousness, agreeableness, openness to experience, extraversion and neuroticism. This implies that respondent entrepreneurs strongly tend to be diligent, disciplined, well organised, punctual, and dependable; also sympathetic, trusting, cooperative, modest and straightforward; in addition, curious, flexible, have a vivid fantasy, imaginative, artistic sensitive and hold unconventional attitudes in the largest variety of environments.

Dependence of Personality Traits on Business Success

To determine whether personality traits act independent of or dependent on business success the theory of marginal probability was utilized based on the assumption that marginal probability if $y = P(A_1/B_1) = P(A_1 \text{ and } B_1) / P(B_1)$ and $x = P(A_1)$ to occur then personality traits acts independent from business success. However in the case of conscientiousness, $P(A_1/B_1) = P(A_1 \text{ and } B_1) / P(B_1) = y$ and $x = P(A_1) = 0.29$
 $P(A_1/B_1) = 0.06/0.25 = 0.24$

$y = 0.24$ and $x = 0.29$ so $y \neq x$; therefore, business success is dependent on conscientiousness. Similar results were achieved for the other four personality traits. This provides evidence for the H_0 hypothesis should be rejected in favor of the H_a . The results clearly demonstrate that business success is influenced by the personality traits of entrepreneurs.

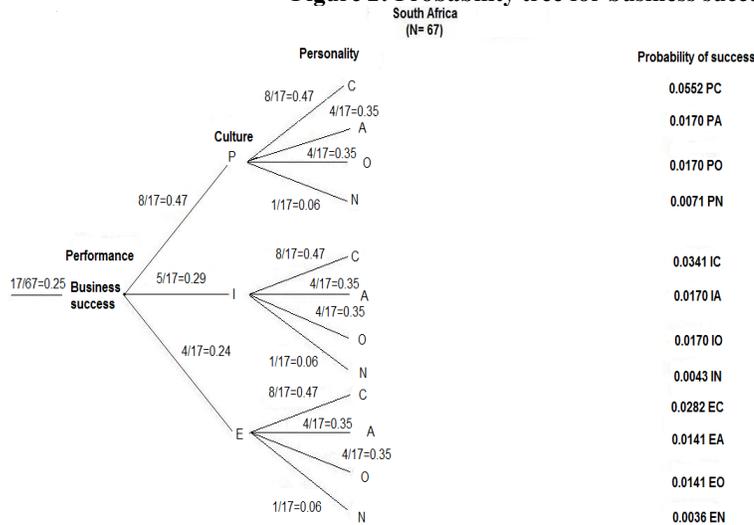
Table 2: Personality traits as determinants of business success calculated using marginal probability

PERSONALITY TRAITS (A)	Business success (B ₁)	Moderate business success (B ₂)	Business failure (B ₃)	Total probability (P _A)
South African origin				
Agreeableness (A ₁)	4/67= 0.06	15/67= 0.22	1/67= 0.01	0.29
Conscientiousness (A ₂)	8/67= 0.12	19/67= 0.3	2/67= 0.03	0.45
Openness to experience (A ₃)	4/67= 0.06	3/67= 0.04	3/67= 0.04	0.14
Extraversion (A ₄)	0	0	0	0
Neuroticism (A ₅)	1/67= 0.01	6/67= 0.1	1/67= 0.01	0.12
Total probability (P _B)	0.25	0.66	0.09	1

Co-effect of Personality Traits and Culture on Business Success

The co-effect of personality traits and culture on business success was calculated by means of a probability tree approach. Both success and moderate success were included in the calculation and treated as one concept “success” (Figure 2). Out of a probability of 1, the greatest probability for business success occurred in a positional culture in South Africa, where roles are attributed, a strict business hierarchy exists, behavior is controlled, staff is expected to obey customs and commands, loyalty is expected and deviance is blamed within a business. Within such a culture, conscientiousness, agreeableness and openness to experience are the dominant personality traits that predict business success the best. The same personality traits are required for success in the less dominant individualistic culture of South Africa. The aggregated probability co-effect of the three mentioned personality traits (conscientiousness, agreeableness and openness to experience) and the positional-individualistic culture explains 15.73% of business success achieved. The remaining percentage of business success should therefore be explained in terms of other entrepreneurial factors and personality characteristics. However, this co-effect percentage of culture-personality contributes significantly to business success and provides evidence for the existence of an optimal environment-entrepreneur fit. The aggregate personality trait mean scores for the entrepreneur respondents in South Africa who achieved business success was 3.97 for conscientiousness, 3.86 for agreeableness and 3.79 for openness to experience.

Figure 2: Probability tree for business success



Research by Goldberg (1990), Saucier (1994), and Howard and Howard (1995) revealed that a small number of personality traits cause business success such as sturdiness, independence and influence, organized, methodical and realistic. These traits correspond to conscientiousness in the Five Factor model and thus confirmed the results of the previous researchers. This research also finds confirmation in the research done by Bono and Judge (2004) and Ekehammar and Akrami (2007) that agreeableness relates positively to business attachment and negatively to business failure.

LIMITATIONS OF THE STUDY

The study was conducted with number limitations. The study was conducted in two countries with limited responses from Mozambique as a result of lack of interest in the study. Furthermore, the study was voluntary and perhaps those who did not participate could provided different view on the subject investigated. Funding was also another limitation to include more than two countries.

IMPLICATIONS AND RECOMMENDATIONS

It is recommended that entrepreneurs in South Africa promote and nurture conscientiousness, agreeableness and openness to experience in people, after age 3 and before age 50, who may still have the potential for change regarding their general personality traits. Support for this deduction can be found in studies done by Lewis (2001) who stated that the level of continuity in childhood and adolescence is much higher than originally expected, especially after age 3. Other research findings demonstrate that personality traits are

essentially steady and fixed after age 30 (McCrae & Costa, 1994). However, the meta-analytic findings show that rank-order steadiness reaches its highest point some time after age 50, but to a very modest extent. Furthermore, traits such as agreeableness and conscientiousness evolve from age 30 and become static before age 50 (McCrae, Ostendorf, Angleitner & Hrebickova, 2000). In the society of South Africa, children at pre-and primary schools; teenagers at high schools and institutions of tertiary education; and adults at companies, firms, and enterprises or in workplace, should be taught by objectives. Knowledge imparted to them should aim to achieve a particular goal to ensure that their personalities match the personality traits required in this society to be a successful entrepreneur. To achieve that ideological goal, the members of the sample should be placed in practical situations where they will have to think, act and react in a conscientious and agreeable manner towards one another. The behaviour and reactions should be demonstrated, taught and explained to the learners. Furthermore, they should be corrected if they react and behave inappropriately or not according to what conscientiousness and agreeableness advocate. These actions will have to be done repetitively over a certain period until the members of the sample will become conscientious and agreeable over a wide spectrum of issues relating to people. Apprenticeships should be in phases: from age 3 to age 24; between 24 and age 30; and lastly, between 34 and age 50. Knowledge imparted should stress development of characteristics such as: willingness to accommodate others; ability to gain acceptance among peers; ability to control anger and control emotions during interpersonal conflicts; and pro-social behaviour/self-control and an ability to pay attention during infancy and childhood; dedicated attention in adulthood; willingness to obey authority and conform to group norms; and positive engagement within task-related endeavors through innovative or active methods such as business/computer game simulations (Hindle & Cutting, 2002); video and films (Verduyn, Wakkee & Kleijn, 2009); role models or guest speakers (Hegarty, 2006); games and competition; settings of real small business ventures; workshops and presentations (Keogh & Galloway, 2004).

Previous research done by Wardekker (2005) in Critical theory of education and personality formation stated that: personality formation can be achieved through education. Developing children in a peculiar society should be aim-oriented. Knowledge conveyed to them should have a particular goal to make sure that they are not misfits, but rather interpret and identify themselves appropriately in their own cultural environment. The objective or goal of that knowledge embodies the values of a society where an ideology is promoted depending on the extent to which limited influence is exerted by one culture over other cultures in a country (Wardekker, 2005).

CONCLUSION

The purpose of this study was to determine the co-effect of culture and personality traits on the business success of South African entrepreneurs. The results revealed that it has a moderate, but significant effect on business success. Operating within a mixed positional-individualistic culture requires personality traits of conscientiousness, agreeableness and openness to experience. In conclusion, support was found that business success is dependent on both personality traits and the culture in which entrepreneurs function.

REFERENCES

- Allport, G.W. (1937). *Personality: A Psychological Interpretation*. New York: Holt, Rinehart & Winston.
- Allport, G.W. (1961). *Pattern and Growth in Personality*. New York: Holt, Rinehart & Winston.
- Barnouw, V. (1979). *Culture and Personality*. Homewood, IL: The Dorsey Press.
- Barrick, M.R. & Mount, M.K. (1991). The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. *Personnel Psychology*, 41 (1): 1-26.
- Barrick, M.R., Mount, M.K., & Judge, T.A. (2001). Personality and Performance at the Beginning of the New Millennium: What Do We Know and Where Do We Go Next? *Personality and Performance*, 9 (1/2): 9-30.
- Bono, J.E. & Judge, T.A. (2004). Personality and Transformational and Transactional Leadership: A Meta-Analysis. *Journal of Applied Psychology*, 89 (4): 901-910.

- Borman, W.C. & Motowidlo, S.J. (1997). Task and Contextual Performance: The Meaning for Personnel Selection Research. *Human Performance*, 10: 99-109.
- Brockhaus, R.H. & Horwitz, P.S. (1986). The Psychology of the Entrepreneur. In Sexton, D.L. & Smilor, R.W. (Eds.), *The Art and Science of Entrepreneurship*, Cambridge, United Kingdom: 25 - 48.
- Bygrave, W.D. (1995). Mom and Pops, High Potential Start-Ups, and Intrapreneurship: Are They Part of the Same Entrepreneurship Paradigm? In Katz, J.A. & Brockhaus, R.H. (Eds.), *Advances in Entrepreneurship, Firm Emergence and Growth*, Greenwich, United Kingdom: 1 - 20.
- Caliguiri, P & Tarique, I. (2012). Dynamic Cross-cultural Competencies and Global Leadership Effectiveness. *Journal of World Business*. 47(2012): 612-622.
- Cattell, R.B. (1950). *Personality: A Systematic Theoretical and Factual Study*. New York: McGraw-Hill.
- Cattell, R.B. (1966). *The Scientific Analysis of Personality*. Chicago: Aldive.
- Church, A.T. (1994). Relating the Tellegen and Five-Factor Models of Personality Structure. *Journal of Personality and Social Psychology*, 67 (5): 898-909.
- Collins, O.F. & Moore, D.G. (1964). *The Enterprising Man*. East Lansing, MI: Michigan State University.
- Cooper, A.C., Dunkelberg, W.C., & Woo, C.Y. (1988). *Survival and Failure: A Longitudinal Study, in Frontiers of Entrepreneurship Research*. Babson Park, Mass.: Babson College.
- Costa, P.T. & McCrae, R.R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five Factor Inventory (NEO-FFI) Professional Manual*. Odessa, Fla.: PAR.
- Costa, P.T. & McCrae, R.R. (1995). Stability and Change in Personality Assessment: The Revised NEO Personality Inventory in the year 2000. *Journal of Personality Assessment*, 68: 86-94.
- Davidsson, P. & Wiklund, J. (1997). Values, Beliefs and Regional Variations in New Firm Formation Rates. *Journal of Economic Psychology*, 18 (2-3): 179-199.
- Douglas, M. (1970). *Natural Symbols: Explorations in Cosmology*. London: The Cresset Press.
- Dvir, D., Sadeh, A., & Pines, A.M. (2006). Projects and Project Managers: The Relationship between Project Managers' Personality, Project Types and Project Success. *Project Management Journal*, 37: 36-48.
- Ekehammar, B. & Akrami, N. (2007). Personality and Prejudice: From Big Five Personality Factors to Facets. *Journal of Personality*, 75 (5): 899-926.
- Goldberg, L.R. (1990). An Alternative Description of Personality: The Big Five Factor Structure. *Journal of Personality and Social Psychology*, 59: 1216-1229.
- Goldberg, L.R. (1999). A Broad-Bandwidth, Public Domain, Personality Inventory Measuring the Lower-Level Facets of Several Five-Factor Models. In Mervielde, I., Deary, I., De Fruyt, F., & Ostendorf, F. (Eds.), *Personality Psychology in Europe*, Tilburg, the Netherlands: 7 - 28.
- Graziano, W.G. & Eisenberg, N. (1997). Agreeableness: A Dimension of Personality. In Hogan, R., Johnson, J. & Briggs, S. (Eds.), *Handbook of Personality Psychology*, USA: Academic Press: 795 - 824.
- Halonen, J.S. & Santrock, J.W. (1993). *Psychology: Context and Applications*. Boston: McGraw-Hill College.
- Hegarty, C. (2006). It's Not an Exact Science: Teaching Entrepreneurship in Northern Ireland. *Emerald Group Publishing Limited*, 48 (5): 322-335.

- Hindle, K. & Cutting, N. (2002). Can Applied Entrepreneurship Education Enhance Job Satisfaction and Financial Performance? An Empirical Investigation in the Australian Pharmacy Profession. *Journal of Small Business Management*, 40 (2): 162-167.
- Hofstede, G. (1980). *Cultures' Consequences: International Differences in Work-Related Values*. Beverly Hills, Calif: Sage Publications.
- Hogan, J. & Ones, D. (1997). Conscientiousness and integrity at work. In Hogan, R., Johnson, J.A. & Briggs, S. (Eds.), *Handbook of Personality Psychology*, USA: Academic Press: 849 – 870.
- Howard, P.J. & Howard, J.M. (1995). *The Big Five Quickstart: An Introduction to the Five Factor Model of Personality for Human Resource Professionals*. Charlotte, N.C.: Center for Applied Cognitive Studies.
- John, O.P. & Srivastava, S. (1999). The Big Five Trait Taxonomy: History, Measurement, and Theoretical Perspectives. In Pervin, L.A. & John, O.P. (Eds.), *Handbook of Personality: Theory and Research*, New York: Guilford Press: 102 - 138.
- Judge, T.A., Bono, J.E., Ilies, R. & Gerhardt, M.W. (2002). Personality and Leadership: A Qualitative and Quantitative Review. *Journal of Applied Psychology*, 87: 765-780.
- Kemper, T.D. & Collins, R. (1990). Dimensions of Micro Interaction. *American Journal of Sociology*, 96: 32-68.
- Keogh, W. & Galloway, L. (2004). Teaching Enterprise in Vocational Disciplines: Reflecting on Positive Experience. *Management Decision*, 42 (3/4): 531-541.
- Kroeber, A.L. & Parsons, T. (1958). The Concepts of Culture and a Social System. *American Sociological Review*, 23 (5): 582-583.
- Lahey, B.B. (2009). Public Health Significance of Neuroticism. *American Psychologist*, 64 (4): 241-256.
- Lewis, M. (2001). Issues in the Study of Personality Development. *Psychology Inquiry*, 12 (2): 67-83.
- McCrae, R.R. & Costa, P.T. (1987). Validation of the Five-Factor Model of Personality Across Instruments and Observers. *Journal of Personality and Social Psychology*, 52 (1): 81-90.
- McCrae, R.R. & Costa, P.T. (1994). The Stability of Personality: Observation and Evaluations. *Current Directions in Psychological Science*, 3: 173-175.
- McCrae, R.R. & Costa, P.T. (1996). Toward a New Generation of Personality Theories: Theoretical Contexts for the Five-Factor Model. In Wiggins, J.S. (Ed.), *The Five-Factor Model of Personality: Theoretical Perspectives*, New York: Guilford Press: 51 - 87.
- McCrae, R.R. & Costa, P.T. (1997). Personality Trait Structure as a Human Universal. *American Psychologist*, 52 (5): 509-516.
- McCrae, R.R. & Costa, P.T. (1999). A Five-Factor Theory of Personality. In Pervin, L.A. & John, O.P. (Eds.), *Handbook of Personality*, New York: Guilford Press: 139 - 153.
- McCrae, R.R., Costa, P.T., Ostendorf, F., Angleitner, A., & Hrebickova, M. (2000). Nature over Nurture: Temperament, Personality, and Lifespan Development. *Journal of Personality and Social Psychology*, 78 (1): 173-186.
- Migliore, L.A. (2011). Relationship between Big Five Personality Traits and Hofstede's Cultural Dimensions. *Cross Cultural Management: An International Journal*, 18 (1) 38-54.
- Mount, M.K., Barrick, M.R. & Stewart, G.L. (1998). Five Factor Model of Personality and Performance in Jobs Involving Interpersonal Interactions. *Human Performance*, 11 (2): 45-165.
- Nicholas, L. (2003). *Introduction to Psychology*. Landsdowne: UCT Press.

- Peltokorpi, V & Froese F.J. (2011). The Impact of Expatriate Personality Traits ON Cross – cultural Adjustment: A Study with Expatriates in Japan. *International business Review*. 21(2012) 734-746.
- Rauch, A. & Frese, M. (2005). Effects of Human Capital and Long-Term Human Resources Development and Utilisation on Employment Growth of Small Scale Businesses: A Causal Analysis. *Entrepreneurship: Theory & Practice*, 29 (6): 681-698.
- Saucier, G. (1994). Mini-Markers: A Brief Version of Goldberg's Unipolar Big Five Markers. *Journal of Personality Assessment*, 63 (3): 506-516.
- Stewart, G.L. (1996). Reward Structure as a Moderator of the Relationship Between Extraversion and Sales Performance. *Journal of Applied Psychology*, 81 (6): 619-627.
- Schwarz, M. & Thompson, M. 1990. *Divided we Stand: Redefining Politics, Technology and Social Choice*. Philadelphia: University of Pennsylvania Press.
- Timmons, J.A. (2007). *New Venture Creation: Entrepreneurship for the 21st Century*. Singapore: McGraw-Hill.
- Trevisan, I., Grundling, J.P. & De Jager, J.W. (2002). The Perception of the Importance of Entrepreneurial Qualities among Small Business Owners and Non Business Owners. In Luthje, C. & Frank, N. (Eds). *Entrepreneurship in Africa: Fostering Entrepreneurship through Freedom* (pp. 128-138). Pretoria: Technikon Pretoria.
- Verdyn, K., Wakkee, I. & Kleijn, E.A. (2009). Filming Entrepreneurship. *International Review of Entrepreneurship*, 7 (3).
- Wardekker, W.L. (2005). *Critical and Vygotskian Theories of Education: A Comparison*. Amsterdam: Vrije Universiteit.
- Watson, D. & Clark, L.A. (1997). Extraversion and its Positive Emotional Core. In Pervin, L.A. & John, O.P. (Eds). *Handbook of Personality Psychology* (pp. 767-793). San Diego, Calif.: Academic Press.
- Weiten, W. & Lloyd, M.A. (2006). *Psychology Applied to Modern Life: Adjustment in the 21st century*. Canada: Thomson Wadsworth.
- Wilken, P.H. (1979). *Entrepreneurship: A Comparative Historical Study*. Norwood, N.J.: Ablex Publications.

AN EXPLORATORY STUDY OF CONSUMER BEHAVIOR IN DIFFERENT RETAIL FORMATS IN INDIA

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ABSTRACT

Although the Indian Retail is dominated by the Unorganized format of retail, this paper guides through the different retail formats presently operates in India and their behavior on the consumers towards their purchasing pattern and different factors that lead to their selection of their retail formats in India based on the different reviews that have been gathered. As the policies regarding the FDI in India has been passed by the Government of India the retaliating in India would reach an another level by the entry of multinational brands in India, It also attempts to identify what role different technology, channel of purchase plays in the buying behavior of the consumers play while selecting the different retail formats. An attempt has also been made to find the variables that can be identified to develop a co – existence model between the organized and unorganized forms of retail formats for sustaining in the Indian broader markets with quality, product choice, and brand affecting the buyers.

INTRODUCTION

The Indian consumers are evolving rapidly and are towards the acceptance and in search of new retail formats. The retail industry is divided into organized (8%) and unorganized (92%) formats as show in the figure below. As the Indian government has introduced the FDI in Single and Multiple Brands in India, there would be an inflow of different foreign retailers in India along with their brands that can directly be placed in the Indian markets. Retail industry in India stands at \$390 billion and organized retail is fast catching up. Over 12 million outlets operate in the country and only 4% of them being larger than 500 sq ft in size (Pandya & Bariya, 2012, p. 7). India's vast middle class and its almost untapped retail industry are key attractions for global retail giants wanting to enter newer markets (Khidir, 2011, p. 7).

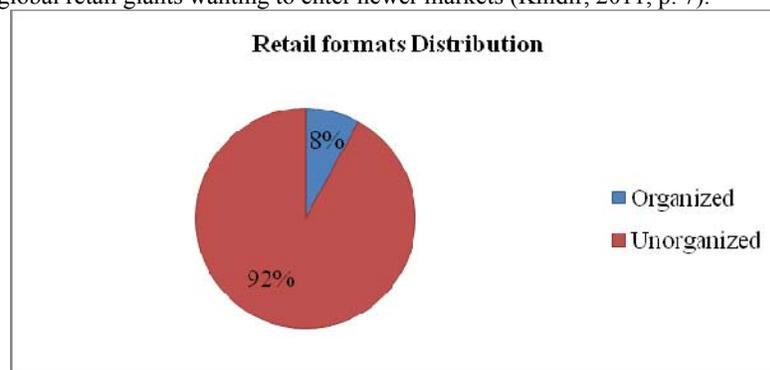


Figure 6 Retail format distribution in India (Source: IBEF website, 2012)

With the fact that the consumer needs and buying behavior are very different for each other within cities (Gokhale & Sinha, 2012, P. 7) they are no longer shopping from the local market; rather the place of shopping has shifted to the stores in malls (Jhamb & Kiran, 2012, p. 7). In recent times rural retailing is witnessing explorations by both corporate houses and entrepreneurs – ITC's Choupal Sagar, HLL's project Shakthi and Mahamaza M & M Shubh Labh stores, Escorts rural stores, Tata Kisan Sansar, and Warnabazaar, Maharashtra are some of the models being tried out. Thus there lies a huge potential in tapping

the rural retail market (Sinha & Kar, 2007, p. 8). In the Figure below, it is observed that we have classified the different format that the consumers prefer in the term of Traditional v/s Modern and Organized and Unorganized format. Domestic retailers are already on the move in rural India, with innovative chain retailing models that have been well-received by rural communities, engaging local farmers and enterprises successfully. One example is Hariyali Kisaan Bazaar, one of the largest national rural retail chains in India, which operates 290 locations, including 20 opened in 2011 alone (Devonshire-Ellis, Tse, Shira & Associates, 2012, p. 8).

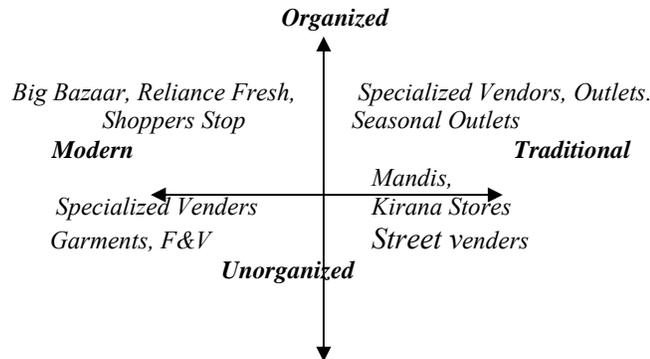


Figure 2: Consumer Perception towards Organized Vs. Unorganized & Modern Vs. Traditional

With this initiative it will become a great deal of study in the field of consumer behavior, their choice of the product, channel and the brand that they would prefer. The new line of consumers would also include the buyers and users who prefer the electronic channel like Websites, Online purchase, online services, etc. as this channel is more appropriate as it saves time and is more convenience as compared to the traditional way of purchasing. In the AT Kearney GRDI report (2009 – 2012) [Table 1] it can be observed that India is a very prospectus country for the Global retailers to invest in the country through the DFI policies. Also it will benefit the local players to tap the rural markets with the best quality, so first initiative was taken in 2007 by Wal-Mart, who announced an agreement with Bharti to establish a joint venture, Bharti Wal-Mart Private Limited, for wholesale cash-and-carry operations in India. Other Global Retail eying Indian Markets are Carrefour, Metro MG to invest in India with “cash and carry Wholesale markets” with integration with the policies and the regulations of the sector.

Table 1 : GRDI ranking & parameters – INDIA

Year	Rank	Country Risk	Market Attractiveness	Market Saturation	Time Pressure	GRDI Score
2009	1	54.0	34	86	97	68.0
2010	3	51.3	35.4	62.2	97.8	61.7
2011	4	59.9	28.9	63.1	100	63.0
2012	5	66.7	31.0	57.6	87.9	60.8

Source: AT Kearney (2009, 2010, 2011, 2012) Global Retail Development Index.

LITERATURE REVIEW

Title	Author	Contribution in study
A study on consumer behaviour of organized and Unorganized retail outlets in Vadodara city	(Pandya & Bariya, 2012, p. 8)	The choice of the purchase is determined by the type of product they purchase and that determines their retail format choice.
Impact of Organized Food Retail on Customer Buying Behaviour in India	(Bandyopadhyaya & Sengupta, 2013, p. 7)	There can be shift in preference for organized shops based on better quality, choice, availability this increase preference for organized shops.
A study of consumer behaviour in Malls vis-à-vis Mom & Pop shops	(Shah, 2009, p. 8)	To understand the behavior, perception, shopping experience in context of buying tactics, shopping priority and experience of malls v/s mom-&-pop

		shops.
Next-Generation Retailing In India: An Empirical Study Using Factor Analysis	(Dash, 2011, p. 7)	To study “Next- Generation Retailing” and describes its characteristic features by using factor analysis to focuses on the advantages of Next Generation Retailers in the Indian context.
Effect of Situational Factors on Store Format Choice Behaviour in Food and Grocery Retailing In India - Multiple Discriminant Analysis	(Cherukuri, 2010, p 7)	Examine the impact of situational factors such as task definition, perceived risk, physical surroundings, social surroundings and Temporal aspects on retail format choice decisions relating to kirana stores, convenience Stores supermarkets and hypermarkets in the fast growing retailing in India.
Consumer Behaviour In Selecting Retail Format: The Perspective Of Theory Of Planned Behaviour	(Ardhanari, et al, 013, p. 7)	Understand the factors that motivate the behavior in which social status becomes the background of the consumer behavior through implementation of the Theory of Planned Behavior to explore consumer behavior in selecting retail format at shopping can be conducted.
Impact of Attributes of Store Format on the Choice Behaviour in Organized Retail Sector	(Singh, 2012, p. 8)	The study identifies that shopper’s education, occupation and income levels also are the major determinants for type of food and grocery retail outlets. The customers visiting organized food and grocery stores are status and quality conscious they always look for the benefits of shopping in a store in terms of self- selection, variety, comparison of brands and discounts available and value for the money.
Drives of retail shopping : An Exploratory study	(Mohanty, 2012, p. 8)	The present paper aims at evaluating the consumers’ attitude towards nearby market, big bazaars and shopping malls and to analyze the related reasons age wise, education wise and income wise.
Would Indian consumers move from kirana stores to organized retailers when shopping for groceries?	(Goswami & Mishra, 2009, p. 7)	Customer perceptions of grocery store attributes differ for kirana stores and organized retailers positively related to location, helpful, trustworthy salespeople, home shopping, cleanliness, offers, quality and negatively related to travel convenience
Determinants of Retail Selection Decision in Malaysia	(Wel, Hussin & Omar, 2011, p. 8)	Mentioned that shopping trends have shifted from standalone traditional grocery outlets and department stores to hypermarkets and shopping malls.
Retailing research: Past, present, and future	(Grewal & Levy , 2007, p. 7)	To study the performance in a technology-based environment, which track and observe actual movement or perhaps determine actual usage and consumption which can be classified into ten broad topic categories: price, promotion, brand/product, service, loyalty, consumer behavior, channel, organizational, Internet
Mall shopping behavior of Indian small town consumers	(Khare, 2011, p. 7)	This study specifically focuses on exploring the differences across age and gender groups. Consumers’ gender and age play an important role in determining their attitude towards shopping in malls with attributes such as de’ cor, layout, services, variety of stores, and entertainment facilities must be considered while planning malls in smaller cities. The mall shopping behavior of metropolitan city shoppers should not be generalized with that of shoppers in smaller cities.

Retailing in India: A Critical Assessment	(Joseph & Soundararajan, 2009, p. 7)	In terms of the shopping behavior traditional outlets are preferred as consumers can bargain along with proximity to residence, goodwill, credit availability, bargaining, choice of loose items, Easy timings, home delivery, etc.
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RETAIL SCENARIO IN INDIA

As FICCI report says (2012), the Indian retail sector accounts for over 20% of the country's gross domestic product (GDP) and contributes 8% to total employment (p. 7). Many of the big retailers have forayed into the on-line mode without much success. This clearly indicates the huge gap between the retail setup between India and other developed countries (India retail blitz, A T Kearny, p. 7). As described by Gupta (2012), with the changing retail scenario the consumers are bound to look beyond traditional retail stores towards organized outlets may be with some reservations (p. 7). Organized retailing, absent in most rural and small towns of India in 2010, refers to trading activities undertaken by licensed retailers, that is, those who are registered for sales tax, income tax, etc. These include the publicly-traded supermarkets, corporate backed hypermarkets and retail chains, and also the privately owned large retail businesses. Majority of the Indian Consumer who are more focused towards retail purchase, is in the hands on Unorganized retailers as compared to Organized Retail chain, but the young generation population which are in their mid-30's which are considered to be the most potential segment to conquer the Indian markets needs to be taken care by the new global retailers.

Unorganized retail format

Unorganized retail trade enterprises, we mean all those local kirana & general shops, family managed – Own Account trade enterprises (Mom-Pop shops), registered under the Shops and Establishment Act (s), administered by the local authorities. The other of retailers include small shops such as tiny grocery and vegetable shops run from a room of a house, kiosks (often selling a variety of items, like small toothpaste tubes, tooth brushes, soaps, pouches of shampoo, etc.), way-side vendors, and hand carts operating without any licenses. As explained by Kalyanasundaram (2012), most Indian shopping takes place in open markets or millions of small, independent grocery and retail shops. Shoppers typically stand outside the retail shop, ask for what they want, and cannot pick or examine a product from the shelf. Access to the shelf or product storage area is limited (p. 7). The unorganized retail shops typically offer no after-sales support or service. Finally, most transactions at unorganized retail shops are done with cash, with all sales being final.

Organized retail format

The first category retailers comprise traders who possess legal permissions or licenses to undertake the activity, are registered with sales tax/VAT, etc. Such enterprises are supermarkets, hypermarkets, retail chains, and also the privately-owned large retail businesses. Following are the type of organized retail format present in India. Organized retailers are initiating measures such as tracking of consumer behavior and consumer loyalty programmes to retain their market share (Mukherjee & Patel, 2005, p. 8). Significant development has been taking place in urban areas in the form of organized retailing like Mega stores or Malls, in southern parts of the country particularly in Bangalore, Chennai and Hyderabad, as well as New Delhi and Mumbai in the North. It is expected that the tier II cities would take another five years to absorb modern retailing opportunities (Ramappa et al., 2012, p. 8).

Table 2: Different Organized Retailers in India and their formats

Organized retailers	Stores / Formats
Future Group	Big Bazaar, Food Bazaar, Pantaloons, Central, Brand Factory, E – Zone.
RP – Sanjiv Goenka Group	Spencer's.
The TATA Group	Westside, Star Bazaar, Croma.
Reliance Retail	Mart, Super, Fresh, Footprint, Living, Digital, Jewelry, Trends.
K Raheja Corp Group	Shoppers Stop, Crossword, Hyper City.

Aditya Birla Group	More
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Source: Different Companies Websites

Online buyers (e – retailers)

As mentioned in India Internet outlook (2013), India now has 3rd largest Internet population in the world with about 150 million Internet users after China (at 575m) and the US (at 275m). At 150 million total Internet users, the Internet penetration in India remains at 12 per cent vs. 43 per cent in China and 80 per cent in the US. India's retail sector has undergone several technology evolutions to enable retailers to increase efficiency, improve customer service and become more competitive. Online sales accounted for less than 1 percent of all retail sales in India in 2012, even though a large number of diverse online retailers exist (ystats.com, 2012, p. 7). Boston Consulting Group (2012) estimated that the retail sales were \$ 471 billion with 7 percent share for the organized retail (\$ 34 billion) in 2011. It also shows that by 2020 the size of the organized retail to be around \$ 260 billion with a penetration of 21 percent. Industry estimates suggest that 56% of the country's online shoppers came from tier-II cities and towns in 2012. As per Eroglua, Machleit & Davis (2001), the retail market is difficult to predict, consumers are evolving, and retailers are expanding operations, further driving the need for IT adoption. The consumer point of view, online shopping offers convenience, value and hedonic consumption possibilities (p. 7). CRM, Supply Chain, Payment Solutions and Security are the key drivers that are looked upon by any e retailers to provide the effective use of their online services.

FUTURE SCOPE OF STUDY

The Indian retail Industry is on a verge of a new Retail forms that are about to take place in terms of FDI investing in India. These global players will be able to adopt the different shopping behaviour in Rural and Urban population Variables namely income, age, technology, social, cross culture consumer across India with a wider sampling and heterogeneous groups. As the study focuses on the different broad concepts of retail formats it becomes very effective and necessary to study whether these formats are acceptable by the consumers markets, so it becomes very necessary to develop a customer profiling model using the Demographic and Sociological factors to study consumption pattern in determining retail format choice by keeping the perceived risk variables into consideration as the consumers are more inclined towards the risk factors involved during buying. There is also the scope in the study of the location of the organized mall that are required to be setup as the consumers prefer the location as the most important factor in buying from a retail outlet, this in return also implies that what type of the product the consumers purchase will determine the type of retail outlet it prefer. The largest scope in study of the retail format resides in the lower income, dwellings, education and locality like towns and villages consumers whether they are willing and ready to accept the different format and the channel of retail in India by studying their behaviour through different consumer perception, attitude. To propose a co-existence model for both Unorganized and Organized type of retail format in India, this in return will benefit the overall performance of different retail players. Due to development of the technology nay factors are need to be adding these technological transformation, channel selection of retail can be understood by applying the Technology Acceptance Model (TAM) on the consumer behaviour.

Proposed Research Framework

The main objective is to identify the impact of the FDI and the current situation of different retail formats in India. It also studies how the development of the different retail formats especially the organized retail format and the online retailer's buyers who prefer these channels of purchase. What are the important factors that the consumer seeks into the type of the retail format they select to purchase or shop from it? It also attempts to identify the consumer behavior in this changing retail scenario. How the technology will changed the way these retail formats are need to be organized in the country like India. It would be important to study that how the product plays an important role in selecting the retail channel and how the consumers look beyond the traditional pattern of purchase for a significant shift towards an organized retail format for better price, quality, choice, variety. To have a new set of variables those are important in coexistence as they fulfill different needs and serve different clientele. That will help the small as well as the bigger player along with the customers to have a wider contribution in the development of the economy and employment of the country. So looking at the Indian markets and their consumers, we need to apply the integrated approach towards different concepts of the consumer Behavior to understand the way in which they interpret the retail

format and their different channel of purchase also how the perceived risk has interdependency among behavior and formats in India which can be as follows:

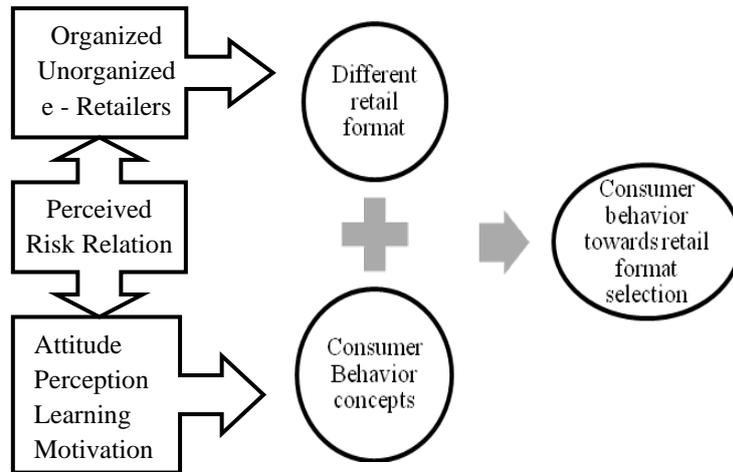


Figure 3: A Proposed Research framework for retail format, perceived risk and consumer behavior concepts

CONCLUSION

Looking at the Indian Consumers, they are more inclined towards the unorganized retail format due to demographic, sociological factors like education, religious belief, type of purchase, the type of product they utilize, their daily requirement and technology in terms of the channel they select to purchase and buy. The Indian retail experience has gone beyond the traditional store and includes numerous touch points such as online stores, social networks, call centers, etc. As the inception of the FDI into the Indian markets have boosted the Indian local players to be more focus in their quality, preferences along with factors about how the system should be developed and implemented which should have parameters like Trust, Security, data and privacy of these data can be effectively preserved during the transaction through online format.

REFERENCES

- Ardhanari, M., Hadiwidjojo, D., Rahayu, M., & Rohman, F. (2013). Consumer Behavior in Selecting Retail Format: The Perspective Of Theory Of Planned Behavior. *International Organization of Scientific Research - Journal of Business and Management*, 7, 17 – 23.
- Atkearney. (2009, 2010, 2011, 2012). *Global Retail Development Index*.
- AT Kearney, *Indian Retail Blitz*.
- Bandyopadhyaya, V., & Sengupta, S. (2013). Impact of Organized Food Retail on Customer Buying Behavior in India. *Tenth AIMS International Conference on Management*, January, 6 – 9.
- Bhattacharyya, R. (2012). The Opportunities and Challenges of FDI in Retail in India *IOSR Journal of Humanities And Social Science (JHSS)* 5, 99 – 109.
- Boston Consulting Group (2012). *The Tiger Roars: Capturing India's Explosive Growth in Consumer Spending*.
- Cherukuri, J. (2010). Effect of Situational Factors on Store Format Choice Behavior in Food and Grocery Retailing In India - Multiple Discriminant Analysis. *IBSU Scientific Journal*, 4, 5 – 33.
- Dash, M.S. (2011). Next-Generation Retailing In India: An Empirical Study Using Factor Analysis. *International Review of Management and Marketing*, 1, 25 – 35.

- Eroglua, S.A., Machleitb, K.A., & Davis, L.M. (2001). Atmospheric qualities of online retailing A conceptual model and implications. *Journal of Business Research*, 54, 177 – 184.
- FICCI. (2012). *The Indian Kaleidoscope Emerging trends in retail*.
- Gokhale, S., & Sinha, P.K. (2012). FDI in Retail: A Global Perspective. Working paper IIM Ahmadabad, 1 – 11.
- Goswami, P., & Mishra, M.S. (2009) Would Indian consumers move from kirana stores to organized retailers when shopping for groceries?. *Asia Pacific Journal of Marketing and Logistics*, 21,127 – 143.
- Grewal, D., & Levy M. (2007) Retailing research: Past, present, and future. *Journal of Retailing*, 83, 447–464.
- Gupta,U. (2012). Changing Consumer Preferences from Unorganized Retailing towards Organized Retailing: A Study in Jammu. *Journal of Emerging Knowledge on Emerging Markets*, 4, 1 – 20.
- <http://ystats.com/en/reports/preview.php?reportId=1015>, February 12th, 2013.
- Jhamb D., & Kiran R. (2012). Trendy shopping replacing traditional format preferences. *African Journal of Business Management*, 6, 4196 – 4207.
- Joseph, M., & Soundararajan, N. (2009). “Retailing in India: A Critical Assessment”, Academic Foundation, New Delhi.
- Kalyanasundaram. (2012). The changing face of Indian Retailing. *Integral Review – A Journal of Management*, 5, 42 – 51.
- Khare, A. (2011).Mall shopping behavior of Indian small town consumers.*Journal of Retailing and Consumer Services*, 18,110 –118.
- Khidir,T. (2011).Effect of Consumer Behavior on Retail Marketing of Consumer Durables.ICOQM-10, June 28–30.
- Levens, M.P. (2012). Marketing to Age Cohorts and Ethnic Groups: A Nexus in the Youth Segment?. *Proceedings of the Atlantic Marketing Association*, 21 – 35.
- Mohanty, S. (2012). Drives of retail shopping: An Exploratory study. *International Journal of Scientific and Research Publications*, 2, 1 – 6.
- Mukherjee, A., & Patel, N. (2005). FDI in Retail Sector: India. Academic Foundation, New Delhi.
- Oghojafor, B.E.A., Ladipo P.K.A., & Nwagwu K.O. (2012).Outlet Attributes as Determinants of Preference of Women between a Supermarket and a Traditional Open Market. *American Journal of Business and Management*, 1, 230 – 240.
- Pandya, A.R., & Bariya, K.J. (2012).A Study on Consumer Behaviorof Organized and Unorganized Retail Outlets in Vadodara City. *International Journal of Engineering and Management Sciences*, 3, 466 – 474.
- Ramappa, K.B., Goudappa S.B., Chandrashekhar, S.M., & Reddy B.S. (2012). Study on investment pattern and organizational structure of Super markets in India-An empirical evidence of Karnataka. *European Journal of Business and Management*, 4, 118 – 124.
- Shah, A.D. (2009). A study of consumer behavior in Malls vis-à-vis Mom & Pop shops, Thesis Phd, Saurashtra University.
- Singh, K. (2012).Impact of Attributes of Store Format on the Choice Behavior in Organized Retail Sector.*International journal of computational engineering & management*, 15, 49 – 52.
- Sinha, P. K., & Kar, S.K. (2007). An Insight into the Growth of New Retail Formats in India. Working Paper. IIMA, 1 – 28.

Wel, C.A.C., Hussin, S.R., & Omar, N.A. (2011).Determinants of Retail Selection Decision in Malaysia. Proceedings of the 6th Annual London Business Research Conference, 1 – 14.

www.2point6billion.com/news/2012/02/02/india-and-chinas-retail-industries-compared-10759.html

www.techcircle.vccircle.com/2013/02/01/2013-india-internet-outlook/

www.technopak.com/resources/retail/E-tailing%20Report%202012.pdf

www.wirelessduniya.com. (2012). Online-retail-industry-in-india-to-reach-84-billion-by-2016-small-town-india-will-play-a-big-role

GREEN MARKETING IN INDIA: AN EXPLORATORY STUDY

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ABSTRACT

One business area where environmental issues have received a great deal of discussion in the popular and professional press is marketing. Terms like "Green Marketing" and "Environmental marketing" appear frequently in the popular press. Many governments around the world have also become so concerned about green marketing activities. Attention was drawn to the subject in late 1970's when the American Marketing Association organized a workshop on Ecological Marketing in 1975. Green Marketing has been an important academic research topic since its inception. But at the same time one of the biggest problems with the green marketing area is that there has been little attempt to academically examine environmental or green marketing. Although environmental issues influence all human activities, few academic disciplines have integrated green issues into their literature. This paper attempts to examine the concept and evolution of green marketing, identify what makes marketing green. An attempt has also been made to discuss some examples of green marketing practices in Indian context and ascertain the ways to improve consumer appeal for environmentally preferable products through different marketing strategies.

INTRODUCTION

Environmental marketing has been defined in terms of customer satisfaction in a sustainable fashion which refers as 'the holistic management process responsible for identifying, anticipating, and satisfying the requirements of the consumers and society, in profitable and sustainable way' (Peattie, 1999, p.7). Investopedia explains 'Green Marketing' as; Green marketing companies seek to go above and beyond traditional marketing by promoting environmental core values in the hope that consumers will associate these values with their company or brand. Engaging in these sustainable activities can lead to creating a new product line that caters to a new target market. Also known as sustainable marketing, environmental marketing or ecological marketing, refers to an organizations effort at designing, promoting, pricing and distributing products that will not harm the environment (Pride & Ferrell, 1993, p. 8). Green marketing has been defined as all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment. (Polonsky, 1994, p. 7)

Although an agreed upon definition of GREEN does not exist, a focus on GREEN is generally considered as a holistic effort to reduce the impact of resource use while making products or delivering services that won't harm people or the planet. (Carlson, p. 7) Green marketing that has been previously and primarily focused on the ecological context has been shifted to more sustainability issues in the marketing efforts and main focus now is in socio-economic and environmental context. Whereas, green market is identified as a part of market segments based on the greenness' of the consumer (Simintiras et al., 1994. p. 8). The term green marketing refers to the strategies to promote products by employing environmental claims either about their attributes or about the systems, policies and processes of the firms that manufacture or sell them (Prakash, 2002, p. 7). Clearly, green marketing is part and parcel of the overall corporate strategy (Menon & Menon, 1997, p. 8). Along with manipulating the traditional marketing mix (product, price, place and promotion), it requires an understanding of public policy processes. Green marketing also ties closely with issues of industrial ecology and environmental sustainability such as extended producers and resource flows, and eco-efficiency (Prakash, 2002, p.7).

EVOLUTION OF GREEN MARKETING

The concept of green marketing has been around at least since the first Earth Day in 1970. But the idea did not catch on until the 1980s, when rising public interest in the environment led to a demand for more green products and services. Manufacturers responded to public interest by labeling hundreds of new products "environmentally friendly"—making claims that products were biodegradable, compostable, energy efficient, or the like. The term Green Marketing came into prominence in the late 1980s and early 1990s. The American Marketing Association (AMA) held the first workshop on "Ecological Marketing" in 1975. The proceedings of this workshop resulted in one of the first books on green marketing entitled "Ecological Marketing". In 1992, the Federal Trade Commission (FTC) stepped in to prevent further deception. The FTC created guidelines for the use of environmental marketing claims such as "recyclable," "biodegradable," "compostable," and the like. The FTC and the U.S. Environmental Protection Agency defined "environmentally preferable products" as products and services that have a lesser or reduced effect on human health and the environment when compared to other products and services that serve the same purpose. The label "environmentally preferable" considers how raw materials are acquired, produced, manufactured, packaged, distributed, reused, operated, maintained, or how the product or service is disposed. During the late 1990s, green marketing received a large boost when President Bill Clinton issued executive orders directing federal offices to purchase recycled and environmentally preferable products. Some industries adopted similar policies. Examples of environmentally-beneficial products and services:

- Paper containing post-consumer wastepaper
- Cereals sold without excess packaging
- Shade-grown coffee beans
- Cleaning supplies that do not harm humans or environment
- Wood harvested from sustainable forests
- Energy-efficient light bulbs
- Energy-efficient cars
- Energy from renewable sources of energy such as windmills and solar power

Today, special labels help the public identify legitimate environmentally preferable products and services. Several environmental groups evaluate and certify products and services that meet FTC standards—or their own tougher standards. One popular product that has received certification is shade-grown coffee, an alternative to coffee beans that are grown on deforested land in the tropics. Green marketing is a way to use the environmental benefits of a product or service to promote sales. Many consumers will choose products that do not damage the environment over less environmentally friendly products, even if they cost more. With green marketing, advertisers focus on environmental benefits to sell products such as biodegradable diapers, energy-efficient light bulbs, and environmentally safe detergents. (Ottoman, Jacquelyn, Miller & Edmond, 1999, p7). Though green marketing has in recent years received considerable attention from both marketing practitioners and academicians, it has existed for decades and has been practised by business firms without having been formally termed and recognized as such (Kuhre, 1997, p. 7). The green marketing has evolved over a period of time. The evolution of green marketing has three phases: The first phase was known as "Ecological" green marketing, and during this period all marketing activities were concerned to help environment problems and provide remedies for environmental problems. The second phase was "Environmental" green marketing and the focus shifted on clean technology that involved designing of innovative new products, which take care of pollution and waste issues. The third phase was "Sustainable" green marketing. It came into prominence in the late 1990s and early 2000. This was the result of the term sustainable development which is defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs." (Peattie 2001, p.129).

REVIEW OF LITERATURE

The green awareness began in between of the 1960s and early 1970s with increasing concern about the negative impact of consumption pattern, impact of economic and population growth on the environment (Cohen, 2001, p. 7). The concept of green marketing 'is the business practice that considers consumers concerns with regards to preservation and conservation of the natural environment (Coddington, 1993, p. 7). Green marketing practices generally promoted as the genuine concern for the nature of inputs as well as outputs waste reduction and the impact of these upon the environment and society as a whole both in present & future conditions (Walker and Hanson, 1998). Green marketing that has been previously and primarily focused on the ecological context has been shifted to more sustainability issues in the marketing efforts and main focus now is in socio-economic and environmental context. Whereas, green market is identified as a

part of market segments based on the greenness of the consumer (Charter et al., 2002; Simintiras et al., 1994).

It is difficult to find an industry that does not harm the environment 100%. But there are some products that can be called "environment friendly", if these products aim at limiting the environmental negative effects (Hindleetal, Pujari & Wright, 1993, 1996, p. 7, 8). Gura'u, & Ranchhod (2005) compared between six British companies and six Romanian companies with regard to presentation of environment friendly products. They found that the Romanian companies concentrate in presenting their products on asking for help of foreign mediators, in the contrast British companies which their trademarks and concentrate on distribution of their products. This study is concentrated on four green marketing elements (product, pricing, distribution and promotion) (p. 8). Green marketing research has come a long way since then, indicating a growing consciousness among the consumers about the environment in developed part of the world like USA and Western Europe (Curlo, 1999, p.37). Research in the last decade (Lee, 2009; Rahbar & Wahid, 2011; Lee, 2008; D Souza, 2004) has further pointed out that purchasers of goods and services are aware and are willing to pay more to "go green". Nevertheless not much research on these lines has been done in developing countries like India (Bhattacharya, 2011).

SEGMENTATION AND MARKETING MIX IN GREEN MARKETING

It has been identified that the segmentation for companies and for consumers. According to Ginsberg and Bloom (2004), Companies can be classified on the basis of utilization of these elements companies can classify in four categories:

1. Lean Green- These companies adopt the green practices but they do not focus to publicize these initiatives. They implement the environment friendly practices just for the cost reduction & improve the efficiency.
2. Defensive Green-This kind of marketer use green marketing as a precaution to avoid the crisis situation or to counter the competition. They use green marketing to create the positive brand image. Environment initiatives may be sincere but temporary just to differentiate from the competitors.
3. Shaded Green- The companies those adopt shaded green strategy invest in long-term, environmentally friendly processes that require a significant financial and nonfinancial dedication. They differentiate their product on the basis of greenness.
4. Extreme Green- Extreme green adopt green marketing mix in the holistic manner. They integrate environmental concern in overall marketing strategy. The greenness is the main driving force for the companies. Concept of life cycle assessment, total environmental quality management, waste reduction, and environment friendly promotion deeply embedded in the company philosophy. They serve the niche segment of the market.

According to a study by Roper (2002), 58% of U.S. consumers try to save electricity at home, 46% recycle newspapers, 45% return bottles or cans and 23% buy products made from, or packaged in, recycled materials. So it is clear that some consumers already demonstrate sporadic green sentiments in their habits and purchasing behavior. Understanding the target consumer will help marketers to know whether "greenness" is an appropriate selling attribute and how it should be incorporated into the marketing mix. To respond to consumers' varying degrees of environmental concern, marketers can segment the market into different shades of green. The Roper survey divides consumers into the following groups:

1. True Blue Greens (9%): True Blues have strong environmental values and take it upon themselves to try to effect positive change. They are over four times more likely to avoid products made by companies that are not environmentally conscious.
2. Greenback Greens (6%): Greenbacks differ from True Blues in that they do not take the time to be politically active. But they are more willing than the average consumer to purchase environmentally friendly products.
3. Sprouts (31%): Sprouts believe in environmental causes in theory but not in practice. Sprouts will rarely buy a green product if it means spending more, but they are capable of going either way and can be persuaded to buy green if appealed to appropriately.
4. Grouzers (19%): Grouzers tend to be uneducated about environmental issues and cynical about their ability to effect change. They believe that green products cost too much and do not perform as well as the competition.
5. Basic Browns (33%): Basic Browns are caught up with day-to- day concerns and do not are about environmental and social issues. (Roper, 2002, p. 8)

According to Al-Bakry (2007), the elements identified of the green marketing mix are:

- 1- The green products: Green products are products that respond to environment needs and requirements. As the customer's needs are necessary to improve and develop products, the customer needs in an environment more safe and healthy are also important and should be considered.
- 2- The green pricing: The green pricing refers to the price specified in the light of company's policies with regard to environmental consideration imposed by rules and company instructions or its initiatives in this regard.
- 3- The green distribution: This is related to distribution gates use that deal with green products, which are appropriate for consumers, in terms of facilitating their delivery, and to secure cycling procedures conducting within environmental conditions and requirements.
- 4- The green promotion: This refers to providing real information about the products in a way that does not hurt the materialistic and moral consumers' interests (p. 7)

Therefore, it has been analyzed that Green Marketing takes a special effort and a different approach as how to Appeal to Green Consumers. Since 1989, Jacquelyn Ottman, a green marketing pioneer, adviser to the Fortune 500 and acknowledged guru of all things green, has been tracking the transition of the green consumer from fringe to now mainstream. In her new book, which is sure to become the go-to resource guide on the topic, Ottman (2008), reveals what it takes to succeed in this new green marketplace, providing insight into the specific needs of today's mainstream consumers, and how companies large and small have responded with fresh green marketing strategies (p. 7). Five Simple Rules of Green Marketing:

1. Know your customer
2. Empower consumers
3. Be transparent
4. Reassure the buyer
5. Consider your pricing (Ottman, 2008, p. 7)

TOP 10 GREEN BRANDS & GREEN INDIAN COMPANIES

According to the 2011 Green Brands survey, findings emphasize that brands must not only develop environmental strategies to address their environmental impact, but they must also connect with consumers in a compelling and relevant way on a market-by-market basis. Today, being only eco-friendly is not enough—brands should be both green and consumer-friendly, and only this can help them win big India:

Top 10 Green brands in India:

1. Amul
2. Dabur
3. Infosys
4. Taj hotels
5. Britannia
6. Suzlon
7. Hindustan Unilever
8. Wipro
9. Maruti
10. Godrej Consumer Products

The Top 10 Green Indian Companies:

Suzlon Energy - The world's fourth largest wind-turbine maker is among the greenest and best Indian companies in India. Tulsi Tanti, the visionary behind Suzlon, convinced the world that wind is the energy of the future and built his factory in Pondicherry to run entirely on wind power. Suzlon's corporate building is the most energy-efficient building ever built in India.

ITC Limited - ITC strengthened their commitment to green technologies by introducing 'ozone-treated elemental chlorine free' bleaching technology for the first time in India. The result is an entire new range of top green products and solutions: the environmentally friendly multi-purpose paper that is less polluting than its traditional counterpart.

Tata Metaliks Limited (TML) - Every day is Environment Day at TML, one of the top green firms in India. A practical example that made everyone sit up and take notice is the company's policy to discourage working on Saturdays at the corporate office. Lights are also switched off during the day with the entire office depending on sunlight.

Tamil Nadu Newsprint and Papers Limited (TNPL) - Adjudged the best performer in the 2009-2010 Green Business Survey, TNPL was awarded the Green Business Leadership Award in the Pulp and Paper Sector.

Wipro Technologies - The list of top 10 green Indian companies is never complete without Wipro which climbed to the top five brand league in Greenpeace's 'Guide to Greener Electronics' ranking. Despite the global financial crisis, Wipro held fast to its commitment towards energy efficiency and was lauded for launching energy star compliant products in the market.

HCL Technologies - This IT major may be considered as the icon of Indian green initiatives, thanks to the "go green" steps taken in solving the problem of toxics and e-waste in the electronics industry. HCL is committed to phasing out the hazardous vinyl plastic and Brominated Flame Retardants from its products and has called for a Restriction on Hazardous Substances (RoHS) legislation in India.

Oil and Natural Gas Company (ONGC) - India's largest oil producer, ONGC, is all set to lead the list of top 10 green Indian companies with energy-efficient, green crematoriums that will soon replace the traditional wooden pyre across the country. ONGC's Mokshada Green Cremation initiative will save 60 to 70% of wood and a fourth of the burning time per cremation.

IndusInd Bank - Green banking has been catching up as among the top Indian green initiatives ever since IndusInd opened the country's first solar-powered ATM and pioneered an eco-savvy change in the Indian banking sector. The bank is planning for more such initiatives in addressing the challenges of climate change.

IDEA Cellular - One of the best Indian companies, IDEA, paints India green with its national 'Use Mobile, Save Paper' campaign. The company had organized Green Pledge campaigns at Indian cities where thousands came forward and pledged to save paper and trees. IDEA has also set up bus shelters with potted plants and tendril climbers to convey the green message.

Hero Honda Motors - Hero Honda is one of the largest two-wheeler manufacturers in India and an equally responsible top green firm in India. The company's philosophy of continuous innovation in green products and solutions has played a key role in striking the right balance between business, mankind and nature.

India's First Eco-Friendly Green Stadium

Thyagaraj Stadium, constructed for the Commonwealth Games in New Delhi has been tagged as India's first ever energy-efficient stadium. This majestic structure stands in the heart of the very quiet residential colony behind the famous INA market of Delhi. It has been built using the latest green building technology and energy-efficient construction material such as fly-ash bricks.

India's First Green Railway station

Railways has inaugurated India's first green station at Manwal on the Jammu-Udhampur rail route. With the tiny station facing frequent power cuts, it has been provided a supply of solar power. The lighting and fans are working on solar power. The state electric supply is a standby source, which can be used in case of any failure of solar system.

Eco-friendly Buildings

The Indian Green Building Council (IGBC), one of the only two organisations that certify buildings on green quotient defines it as "one which uses less water, optimises energy efficiency, conserves natural resources, generates less waste and provides healthier spaces for occupants, as compared to a conventional building." The Green Rating for Integrated Habitat Assessment (GRIHA) of The Energy and Resource Institute (TERI), the second of the two organizations, that gives green certification has certified seven buildings in Gurgaon.

Indian Oil's Green Agenda

As an active partner of the Global Compact Programme of the United Nations, Indian Oil is fully Focused on "sustainable development." As a dominant player, the Corporation recognizes protection of environment as a core commitment of its business. As part of this commitment, all operating units and installations of Indian Oil have a comprehensive safety, health & environment management system in place. The facilities are periodically reviewed and upgraded from time to time for better performance.

Green Fuel alternatives

In the country's pursuit of alternative sources of energy, Indian Oil is focusing on CNG (compressed natural gas), Auto gas (LPG), ethanol blended petrol, bio-diesel, and Hydrogen energy.

Agartala to be Northeast India's First Solar city

Tripura has planned to make all public and private vehicles in Agartala run on compressed natural gas (CNG) by 2013, thus making the capital "India's first green city". Tripura Natural Gas Co (TNGCL) — a joint venture of the Gas Authority of India Ltd (GAIL) and the Tripura and Assam governments—has undertaken a project to supply CNG to all private and government vehicles. CNG will also be available to those now using electricity, petrol and diesel to run various machineries.

Green rickshaws

Power distribution company BYPL has agreed to set up ports for charging eco-friendly rickshaws that will be powered by batteries and will soon be introduced in East and Central Delhi. The company signed an agreement with the HBL Soleckshaw Pedi Cab, makers of the eco friendly-rickshaws, offering to set up infrastructure that will be needed for charging the batteries of these rickshaws. According to a BYPL spokesperson, the Pedi Cabs can play at the maximum speed of 30 km per hour, are run on battery, do not emit any smoke or cause noise pollution. These rickshaws have been designed and promoted by Council of Scientific and Industrial Research (CSIR) through one of its national research and development laboratory, the Central Mechanical Engineering Research Institute (CMERI).

FUTURE SCOPE OF STUDY & CONCLUSION

Green Marketers need to Promote “Added Value”. As green products have begun to rival their “brown” counterparts in quality and ubiquity, savvy marketers have moved beyond targeting “deep green” consumers with a “save the planet” pitch. Instead, they appeal to today’s newly mainstream consumers by promoting the added value their products provide: better health, superior performance, good taste, cost- effectiveness—and even status. (Menone, 2011, p. 7) The present study opens a lot of scope for future research in the area of Green marketing as to how much practice of the concept of ‘green’ is in Indian companies. It can be identified that the companies incorporating green in the segmentation and design green marketing mix to the consumers and thereby in their corporate social responsibility programs. The study of consumers’ perception towards such practices also requires researcher’s attention. Further, this study opens the scope of research how companies can create competitive edge.

REFERENCES

- Al –Bakri, T. (2007). Marketing and Social Responsibility (in Arabic). 1st .ed. Dar Wael, Amman, Jordan.
- Aseem, P. (2002), “Green Marketing, public policy and managerial strategies, Business Strategy and Environment”. Bus. Strat. Env. 11, 285-297.
- Carlson, K. “The EarthSmart Consumer”. www.earthsmartconsumer.com.
- Coddington, W. (1993). Environmental Marketing: Positive Strategies for Reaching the Green Consumer. McGraw- Hill: New York.
- Cohen, M. (2001), “The Emergent Environmental Policy Discourse on Sustainable Consumption”, Exploring Sustainable Consumption: Environmental Policy and the Social Sciences, Cohen, M.J. and Murphy, J. (Ed.), Pergamon, London, 21-37.
- Curlo, E. (1999). Marketing strategy, product safety, and ethical factors in consumer choice. Journal of Business Ethics, 21(1), 37-48.
- D'Souza, C. (2004). Eco-label programmes: A stakeholder (consumer) perspective. Corporate communications: An International Journal, 9(3), 179-188.

Federal Trade Commission Bureau of Consumer Protection. Environmental Marketing Claims. Available from <http://www.ftc.gov/>. : Green Marketing - environmental, human, power, sources, use, health, oil

Ginsberg, J. M., & Bloom, P.N. (2004), "Choosing the Right Green Marketing Strategy". MIT Sloan Management Review, 46, 79-84.

Going green: City new hub of eco-friendly buildings Deevakar Anand Deevakar Anand, Hindustan Times Gurgaon, December 07, 2011, First Published: 00:49 IST(7/12/2011) | Last Updated: 00:51 IST(7/12/2011)<http://www.hindustantimes.com/India-news/Haryana/Going-green-City-new-hub-of-eco-friendly-buildings/Article1-778843.aspx>

Green marketing tv: <http://www.greenmarketing.tv/2010/06/27/what-is-green-marketing/>

Hindle, P., White, P., & Minion, K. (1993), "Achieving real environmental improvements using value-impact assessment". Long Range Planning, 26, 36-48.

Investopedia: <http://www.investopedia.com/terms/g/green-marketing.asp#ixzz1qb6FH61N>

IndianOil's Green Agenda, Indian Oil: <http://www.iocl.com/Aboutus/Environment.aspx>

Kuhre, W.L. (1997). ISO 14020s: Environmental Labelling- Marketing, Efficient and Accurate Environmental Marketing Procedures. New Jersey, PTR: PrenticeHall.

Lee, K. (2008). Opportunities for green marketing: Young consumers. Marketing Intelligence & Planning, 26(6), 573-586.

Lee, K. (2009). Gender differences in Hong Kong adolescent consumers green purchasing behavior. Journal of Consumer Marketing, 26(2), 87-96.

Menone, C. (2011). 'How to Appeal to Changing Needs of Today's Mainstream Green Consumers', 8th February.

Menon, A., & Menon, A. (1997). Enviropreneurial marketing strategy: the emergence of corporate environmentalism as market strategy. Journal of Marketing, 61, 51 –67.

Ottoman, J., Miller., & Edmond, S. (1999). Green Marketing Opportunities for Innovation. New York: McGraw-Hill.

Ottman, J. (2008), 'The 5 Simple Rules of Green Marketing', Design Management Review, Fall 2008, <http://www.greenmarketing.com/articles/complete/the-5-simple-rules-of-green-marketing1/> Journal of Strategic Marketing, 7, 131-148.

Peattie, K. (1999). "Trappings versus substance in the greening of marketing planning."

Peattie, K.: Towards Sustainability (2001): The Third Age of Green Marketing, The Marketing Review, 2001/2, pp. 129-146

Polonsky, M.J. (1994). An Introduction to Green Marketing, Electronic Green, 1, <http://gopher.uidaho.edu/1/UIgopher/library/egj/>.

Pride, W.M., & Ferrell, O.C. (1993). Marketing. Boston, MA: Houghton-Mifflin.

Pujari, D. and Wright, G. (1996), "Developing environmentally-conscious product strategy (ECPS): a qualitative study of selected companies in Britain and Germany". Marketing Intelligence & Planning, 14, 19-28

Rahbar, E., & Wahid, N. A. (2011). Investigation of green marketing tools' effect on consumers' purchase behavior. Business Strategy Series, 12(2), 73–83.

Roper A.S.W. (2002). "Green Gauge Report 2002" New York.

Simintiras, A.C, Schlegelmilch, B.B. & Diamantopoulos, A. (1994). 'Greening the marketing mix: a review of the literature and an agenda for future research. In: McDonagh P, Prothero A, editors. Green management a reader. London.

The 2011 Green Brands <http://www.cohnwolfe.com/en/ideas-insights/white-papers/green-brands-survey-2011>.

Walker, R. H. and Hanson, D.J. (1998), "Green Marketing and Green Places: A Taxonomy for the Destination Marketer", *Journal of Marketing Management*, 14, 623–39.

CONSUMERS' BEHAVIOR FOR USING SMART PHONE APPS

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ABSTRACT

Smart phone users are expected to exceed one billion in the world by 2013. Using smart phone has become a part of human's daily life. The purpose of this research is to study smart phone users' behavior intention and use behavior of selected applications. The author measured actual usage behavior of mobile applications in an empirical study of 342 Taiwanese smart phone users. An online survey was deployed for collecting data to test the Unified Theory of Acceptance and Use of Technology (UTAUT) model and explaining behavior intention to use behavior. This study proves the UTAUT model could measure smart phone mobile applications as a generic concept by using partial least squares (PLS) techniques. The adoption of mobile application is influenced by consumers' performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit.

INTRODUCTION

Smart phone users are expected to exceed one billion in the world by 2013. Using smart phone has become a part of human's daily life. Smart phone entered the market so quickly, in addition to the progress of 3C products, but also it has many powerful features as well as convenience, all-encompassing applications, those will be free downloaded and provide consumer choice (Xu et al. 2011). The smart phones entry-level sales jumped 500 percent year-on-year in Taiwan last year (Jiang & Huang, 2013). Since Apple launched the smart phone – iPhone on June in 2007 those are accumulated \$150 billion sales revenue for Apple. And the Apple store has driven a new business model of mobile applications (Chen, 2012). Apple's App Store has accumulated more than 15 billion apps on July 7, 2011 (Wikipedia, 2013). Android market is the proportion of free applications the highest for a market. The download numbers of applications are more than 30 billion since Apple store operation. There are 600 thousands download numbers of applications on Google Play. The overall download numbers are exceeded 20 billion (Chen, 2012).

The purpose of this research is to study smart phone apps users' behavior intention and use behavior of selected applications. This study tries to find out what drives the behavior intention and use behavior of smart phone mobile applications in Taiwan.

The remains of this study are organized as follows. Section 2 introduces literatures reviews. The methodology is presented in section 3. Results are carried out in section 4. The conclusions are described in the last section.

LITERATURE REVIEW

The unified theory of acceptance and use of technology (UTAUT) comes together Innovation Diffusion Theory (IDT), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Social Cognitive Theory (SCT), Technology Acceptance Model (TAM), Model of PC Utilization (MPCU), Motivational Model (MM) and Combined TAM and TPB (C-TAM-TPB) to give a useful instrument for managers to recognize the drivers of technology acceptance (Venkatesh et al. 2003). The UTAUT model consolidates previous TAM related studies. There are many researches deployed the UTAUT model to examine users' behavior in using course management software (Marchewka et al., 2007), adoption of mobile devices/services (Carlsson et al., 2006), citizens acceptance for e-government services (Alshehri 2013), students' adoptions and attitudes towards electronic placement tests (Tan 2013) etc.

For examining several sources of data on smart phone use, Oulasvirta et al. (2012) used the controlled field experiment to check smart phone users' habits. There are several findings in their study:

1. Brief usage sessions repeating over time, or "checking behaviors," comprise a large part of smart phone use.
2. Checking habits are particularly characteristic of smart phone use.
3. Habits may increase overall phone use, especially other applications.
4. Quick access to dynamic content can induce habits.
5. A smart phone use habit is tightly associated with a particular triggering context.
6. Smartphone-related habits are not yet perceived as problematic.

Based on the abovementioned, the author proposes the following hypothesis:

H1: performance expectancy has a positive effect on behavioral intention enabled by users of smart phone apps.

H2: effort expectancy has a positive effect on behavioral intention enabled by users of smart phone apps.

H3: Social influence has a positive effect on behavioral intention enabled by users of smart phone apps.

H4a: Effort expectancy has a positive effect on behavioral intention enabled by users of smart phone apps.

H4b: Effort expectancy has a positive effect on use behavior enabled by users of smart phone apps.

H5: Hedonic Motivation has a positive effect on behavioral intention enabled by users of smart phone apps.

H6: Price value has a positive effect on behavioral intention enabled by users of smart phone apps.

H7a: Habit has a positive effect on behavioral intention enabled by users of smart phone apps.

H7b: Habit has a positive effect on use behavior enabled by users of smart phone apps.

H8: Behavior intention has a positive effect on use behavior enabled by users of smart phone apps.

METHODOLOGY

An online survey was developed base on the instrument developed by Venkatesh, et al. (2003). The pretest in this study was deployed from October 1 through October 7 in 2012. The Cronbach's Alpha was .91. And the accumulative explanation variance was 79.3%. Data was collected from November through December 2012. There were 342 participants and Table 1 shows a summary of the participants' ages and Table 2 summarizes their smart phone operation system. An online survey was used for collecting data to test the UTAUT model and explaining behavior intention to use behavior.

Table 1: Participant ages (n = 342)

Age Group	Frequency	Percent
40+	11	3.2%
30-39	22	6.4%
20-29	253	74.0%
19 and below	56	16.4%

Table 2: Participants' smart phone operation system (n = 342)

Smart Phone Operation System	Frequency	Percent
iOS	116	33.9%
Android	217	63.4%
iOS + Android	3	1.0%
Others	6	1.7%

In addition, a reliability analysis was conducted for the scales via Cronbach's Alpha. As summarized in Table 3, the several of the scales that represent the UTAUT constructs shows to have a good degree of reliability since each is above .70. Unfortunately, it shows that the Facilitating Conditions, Price Value, and Habit are questionable because those respective test statistic values are below .70.

The PLS structural equation modelling (Fornell and Cha, 1994) was applied to test the relationships among the constructs. PLS allows for the measurement model and the structural model to be examined simultaneously (Gefen et al., 2000). PLS is appropriate for this study for two reasons. First, PLS employs a component-based approach and can handle both reflective and formative constructs (Gefen et al., 2000). Second, PLS has a minimal restriction on the sample size and residual distributions (Chin et al., 2003). We specifically employed the SmartPLS (Ringle et al., 2005), which allows the simultaneous testing of hypotheses whilst enabling single- and multi-item measurement and the use of both reflective and formative scales (Fornell and Bookstein, 1982). A PLS model is usually analysed and interpreted in two stages (Hulland, 1999). In the first stage, the measurement model is tested by performing validity and reliability

analysis on each of the measurements of the model. In the second stage, the structural model is tested by estimating the paths between the constructs in the model, determining their significance and the predictive ability of the model. This sequence is followed to ensure that reliable and valid measurements of the constructs are determined before conclusions about the nature of the construct relationships are drawn (Hulland, 1999).

Table 3: Reliability analysis (n = 342)

UTAUT Construct	Cronbach's Alpha	Number of Items
Performance Expectancy	.82	4
Effort Expectancy	.86	4
Social Influence	.72	3
Facilitating Conditions	.39	4
Hedonic Motivation	.91	3
Price Value	.45	3
Habit	.46	4
Behavior Intention	.84	3

RESULTS

Table 4 shows the summary of a Spearman's correlation analysis to test the relationships between UTAUT constructs. It appears the UTAUT constructs have a positive relationship between Performance Expectancy and Effort Expectancy, Effort Expectancy and Social Influence, Social Influence and Facilitating Conditions, Facilitating Conditions and Hedonic Motivation, Hedonic Motivation and Price Value, Price Value and Habit, Habit and Behavior Intention.

Table 4: Spearman's Correlations for n=342

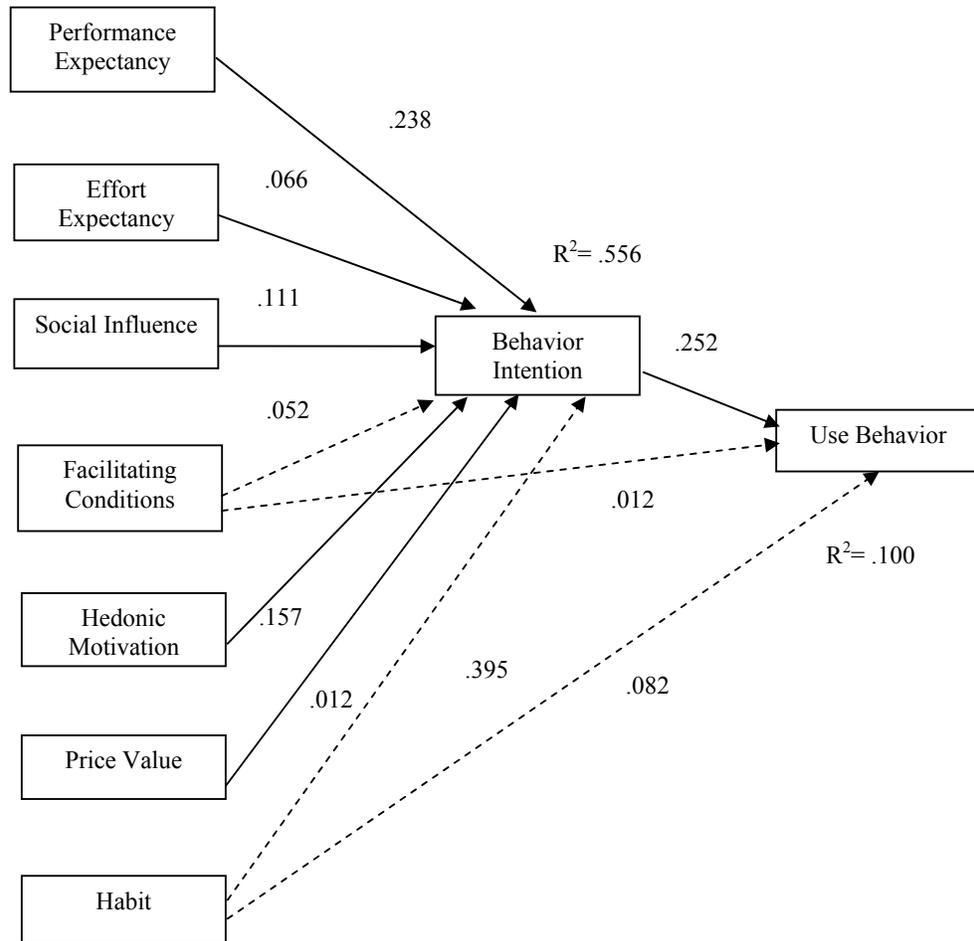
	PE	EE	SI	FC	HM	PV	H	BI
Performance Expectancy (PE)	1							
Effort Expectancy (EE)	.39	1						
Social Influence (SI)	.33	.30	1					
Facilitating Conditions (FC)	.42	.33	.37	1				
Hedonic Motivation (HM)	.31	.37	.28	.29	1			
Price Value (PV)	.22	.34	.26	.23	.29	1		
Habit (H)	.39	.34	.42	.31	.45	.23	1	
Behavior Intention(BI)	.53	.40	.44	.38	.48	.30	.65	1

The PLS method used to estimate the sample correlation coefficient method did not provide a goodness of fit index (GFI), in which the path coefficients and R^2 values are mainly indicators that judge the suitability of the measured models (Chin, 1998). R^2 values provide an indication of the predictive ability of the independent variables.

Performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit are positive effect on behavior intention. Behavior intention, facilitating conditions and habit are positive effect on use behavior.

The key PLS outputs for this analysis are as follows. First, R^2 values reported in Figure 1 provide an indication of the predictive ability of the independent variables. Hulland (1999) examines the R^2 values ranges from a low of 12 per cent (Cool et al., 1989) to a high of 64 percent (Birkinshaw et al., 1995). The R square value (.556) for an endogenous construct on behavior intention is higher than .12. Unfortunately, the R square value (.100) for an endogenous construct on use behavior is lower than .12. The path coefficients are also reported in Figure 1. PLS, a distribution-free technique, uses the bootstrapping resampling technique to determine the significance of the paths. The results reveal that all the links in the model are significant at the 0.1% level.

Additionally, path coefficients are reported in Figure 1. Of the all hypotheses concerning the direct relationships between performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit and behavior intention – H1, H2, H3, H4a, H5, H6, and H7a – are supported H1, $\beta = .238, p < .001$; H2, $\beta = .066, p < .001$; H3, $\beta = .111, p < .001$; H4a, $\beta = .052, p < .001$; H5, $\beta = .157, p < .001$; H6, $\beta = .012, p < .001$; H7a, $\beta = .395, p < .001$. The hypotheses considering the links between facilitating conditions, habit and use behavior is supported (H4b, $\beta = .012, p < .001$; H7b, $\beta = .082, p < .001$). The hypothesis about the relationships between behavior intention and use behavior are verified (H8, $\beta = .252, p < .001$).



Figur1: Structural model results

CONCLUSIONS

Performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit are positive effect on behavior intention. Behavior intention, facilitating conditions and habit are positive effect on use behavior. The research limitation in this study is that the data of this study consisting young smart phone users and most of them are students that makes the results generalization difficult. The author summarizes the practical implications of this study as follow: First, habit and performance expectancy influence behavior intention more than effort expectancy, social influence, facilitating conditions, hedonic motivation and price value. Second, behavior intention influences use behavior more than facilitating and habit.

The manager should focus on consumers' habit and expectancy influence to increase consumers' behavior intention to enforce use behavior. To design the smart phone applications for meeting consumers' need and enforce consumers to rely on these applications to be consumers' habit. And to use smart phone apps can help consumers to complete their daily work more quickly and increasing users' productivity. The value of this study is to prove the UTAUT model could measure smart phone mobile applications as a

generic concept. The adoption of mobile application is influenced by users' performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value and habit.

REFERENCES

Alshehri, M., Drew, S. & AlGhamdi, R. (2013) Analysis of Citizens' Acceptance for e-Government Services: Applying the UTAUT Model. *arXiv preprint arxiv: 1304.3157*, 1-8.

Carlsson, C., Carlsson, J., Hyvönen, K., Puhakainen, J., & Walden, P. (2006), Adoption of Mobile Devices/Services – Searching for Answers with the UTAUT, *Proceedings of the 39th Hawaii International Conference on System Sciences*, pp. 1-10.

Chen, J.F. (2012), Taiwanese Mobile Applications Usage Behavior and Preferences, <http://www.communications.org.tw/communications/upfiles/20120821.pdf>.

Chin, W.W. (1998) The partial least square approach for structural equation modeling. 295-366 in: *Modern methods for business research*. Edited by G. A. Marcoulides, 295-366. New Jersey: Lawrence Erlbaum Associates.

Chin, W.W., Marcolin, B.L. & Newsted, P.N. (2003) A partial least squares approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic mail emotion/adoption study. *Information Systems Research*, 14, 189-217.

Fornell, C. & Bookstein, F.L. (1982) Two structural equation models: LISREL and PLS applied to consumer exit-voice theory. *Journal of Marketing Research*, 19, 440-452.

Fornell, C. & Cha, J., Partial Least Squares, in *Advanced Methods of Marketing Research*, P. B. Richard, Blackwell, Cambridge, 52-78, 1994.

Gefen, D., Straub, D. & Boudreau, M. (2000) Structural equation modeling and regression: guidelines for research practice. *Communications of the Association for Information Systems*, 4, 1-70.

Hulland, J. (1999) Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal*, 20, 195-204.

Jiang, E. & Huang, F. (2013) Smartphones sales in Taiwan's Show 6% Growth for 2012, Focus Taiwan News Channel, <http://focustaiwan.tw/news/aeco/201303200035.aspx>.

Marchewka, J.T., Liu, C. & Kostiwa K. (2007) An Application of the UTAUT Model for Understanding Student Perceptions Using Course Management Software. *Communications of the IIMA*, 7(2), 93-104.

Oulasvirta, A., Rattenbury, T., Ma, L. & Raita, E. (2012), Habits make smartphone use more pervasive, *Personal and Ubiquitous computing*, 16(1), 105-114.

Ringle, C.M., Wende, S. & Will, A. (2005) SmartPLS 2.0 (M3) Beta, Hamburg.

Tan, P. J. B. (2013) Students' Adoptions and Attitudes towards Electronic Placement Tests: A UTAUT Analysis. *American Journal of computer Technology and Application*. 1(1), 14-24.

Venkatesh, V., & Morris, M. G. (2003), User acceptance of information technology: toward a unified view, *MIS Quarterly*, 27(3), 425-478.

Wikipedia, (2013). *App Store (iOS)*, [http://en.wikipedia.org/wiki/App_Store_\(iOS\)](http://en.wikipedia.org/wiki/App_Store_(iOS)).

Xu, Q., Erman, J., Gerber, A., Mao, Z., Pang, J., & Venkataraman, S. (2011), Identifying Diverse Usage Behaviors of Smartphone Apps, *Proceedings of the 2011 ACM SIGCOMM conference on Internet measurement conference*, 329-344.

DRIVING FORCES WHICH ENTHUSE THE CONTINUOUS GROWTH OF CHINESE STUDENTS IN U.S. COLLEGES-A PRELIMINARY STUDY ON CHINESE STUDENTS MOTIVES

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ABSTRACT

China has emerged as the second largest economy after the U.S. in the world, and it is the leading source of international students for the U.S. schools in the recent years. Educators and researchers seek to understand this phenomenon and identify better ways to serve this population. This research, through an empirical setting, explores the motives of Chinese students who choose to study in the U.S. in order to provide insights and direction for both educators and university administrators. The research finds that Chinese students are highly motivated to come to the U.S. to Gain a new perspective and study in a better environment. The research has only explored a glimpse of Chinese students studying in the U.S., while the future researches in this area can further enhance a better understanding of the Chinese students and provide better services to this population.

INTRODUCTION

The number of international students worldwide rose from a mere 0.8 million in 1975 to 4.1 million in 2010, according to the International Organization for Economic Co-operation and Development. [Sood, 2012]. The U.S. is the leading destinations for international students, and attracted 764,495 international students during the 2011-12 school year, which is about 3.7% of the total number students enrolled in the U.S. and spent about US\$21.81 billion in 2011/12. By any measure, international education makes a significant contribution to the U.S. economy. In New York State for example, the portion of this contribution was about US\$2.6 billion, which accounts for over 10% of the national total contribution of international students. The economic impacts are not limited to the spending of these foreign students, but also their families residing in the host country. [NAFSA, 2012]. International students can also boost a country's higher education standards, with universities doing their best to attract the world's best and brightest in their chosen fields of specialization [Sood, 2012]. Conversely, countries that see their students study abroad normally hope that these students return home and contribute to their home economy.

The U.S. has maintained its position as the leading destination worldwide, however its share of international students has been shrinking, attracting 16.6% in 2010 [Marmolejo, 2012]. Undoubtedly, China is too big to ignore as the second largest economy in the world, the country is also the heavyweight with regards to outbound international student mobility. China has emerged as the leading source of international students for the U.S. schools in the recent years. Recent statistics from the U.S. Immigration and Customs Enforcement (USICE) show that the number of active Chinese students on F-1 or M-1 visas at Student and Exchange Visitor Approved schools at the end of 2011 increased by about 23% to nearly 194,029 versus the previous year. [Choudaha and Chang, 2012]. Educators and researchers seek to understand this phenomenon and identify better ways to serve this population. This research, through an empirical setting intends to explore the motives of Chinese students who choose to study in the U.S. in order to provide insights and direction for both educators and university administrators-

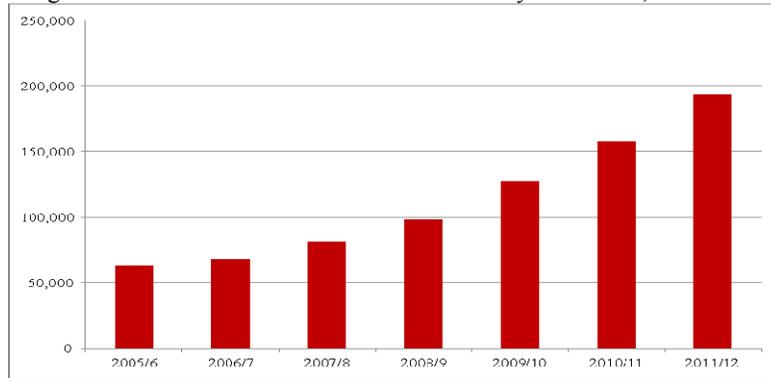
REVIEW OF LITERATURE

Education has been a high priority in China for thousands of years. On average, the country's high-net-worth individuals spend 170,000 yuan (about \$27,000), to educate each of their children. This was the third-highest area of their spending, after travel and luxury goods.

American businesses, management know-how, and capital have been flowing to China for the past 30 years, but it is education that reverses the tide. Studies show that an overwhelming majority of China's wealthiest want to send their children to foreign universities and the United States is their first choice. Ninety percent of the country's richest people have plans to send their children abroad to study; according to independent research by China's Industrial Bank Co. and the Hurun Report. Their Chinese Luxury Consumer White Paper 2012 reports that 9 of out of every 10 Chinese with assets of more than 100 million yuan (\$16 million) plan to send their children abroad, while 85% of those with at least \$1 million said they would send their children overseas for education.

The first graduate from China may well have been Yung Wing, who had graduated from Yale in 1850. By 1880 there were 70 Japanese and 108 Chinese students studying in American universities, compared with a dozen Japanese and almost no Chinese in European universities [*The Chinese-American Museum of Chicago*, 1880]. Noticeably, since then China has become the largest source of international student source for the U.S. schools in the recent years. Figure 1 shows the growth of the total number of students from China.

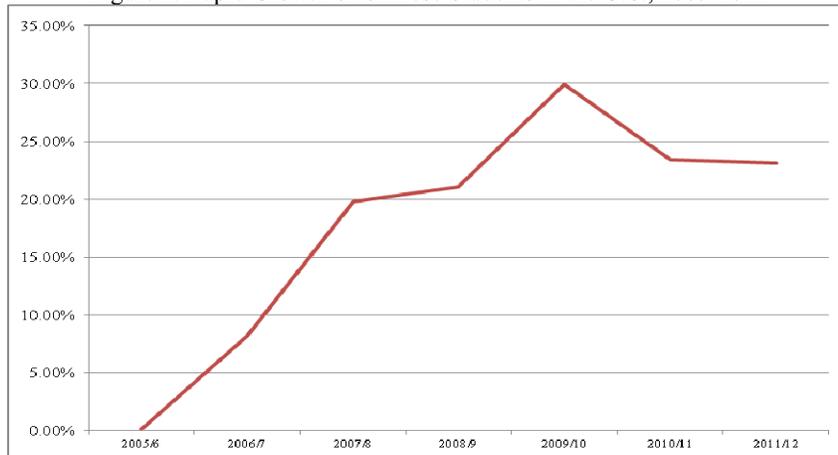
Figure 1. Total number of Chinese Students Study in the U.S., 2001-2012



Source: Data from the National Center for Education Statistics, <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Special-Reports/Economic-Impact-of-International-Students>

Figure 2 presents the phenomenal growth rate of Chinese students in the recent years.

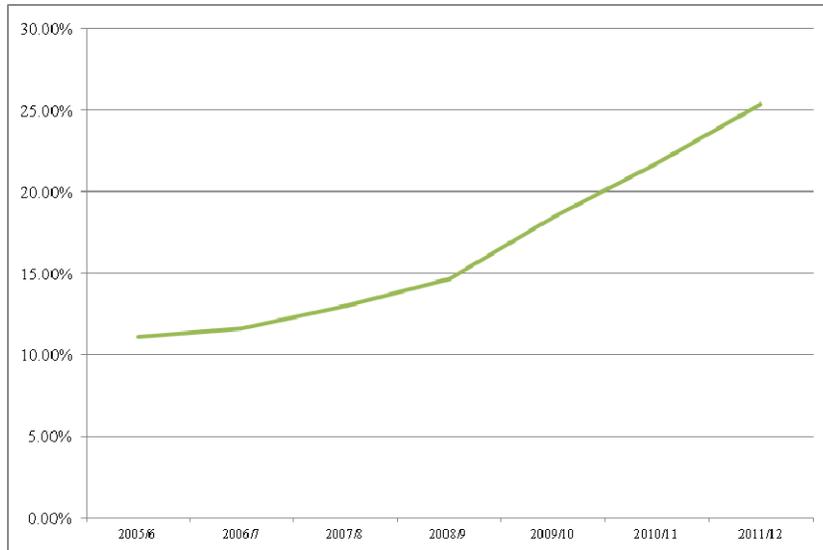
Figure 2. Rapid Growth of Chinese Students in the U.S., 2005-2012



Source: Data from the National Center for Education Statistics, <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Special-Reports/Economic-Impact-of-International-Students>

Figure 3 indicates the proportion of Chinese students among all international students in the U.S. The figure shows that Chinese students are more than 25% of international students studying in the U.S. during 2011-12 school years.

Figure 3. Growth of Chinese Students Compared with the Total International Students in the U.S., 2005-2012



Source: Data from the National Center for Education Statistics, <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Special-Reports/Economic-Impact-of-International-Students>

For Chinese students in the 2010 to 2011 term, the top field of study was business/management, with engineering following close behind. The benefits of studying abroad are felt both by individuals and entire nations. For this reason educators and researchers are interested in the motives and reasons that encourage Chinese students study in the U.S. For thousands of years, education has been placed top priority by the Chinese families and with China's economic reforms during the past leading a growth in wealth and a shrinking family size (only one child per family) sending children to international universities has become less burdensome. Currently, more than 92% of these students have their studies funded privately, according to CGG's report [Wang, 2012]. Meanwhile, many U.S. universities are facing an increasingly tough financial situation with a shortage of domestic students, a decrease in corporate and declines in government subsidies. In such a situation, Chinese students with money to spend may fill the financial gap [Joseph, 2012].

Besides economic well being, many Chinese students decide to study abroad because they believe there is a better quality education in foreign countries. [Yan, 2012; and Albrecht, et al 2012].

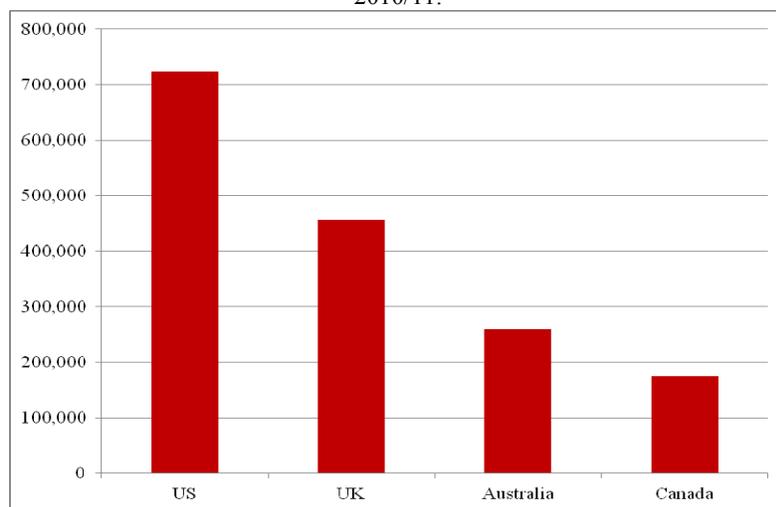
The growth in Chinese students may also reflect a confluence of factors. First, more Chinese citizens are completing college and thus eligible to apply to grad school. Second, many U.S. schools are recruiting more aggressively overseas, marketing their programs to a wider talent pool. Word of mouth then fuels the trend. Once some students attend a program, they recommend it to friends back home. Many schools have set up their gateway offices in China, i.e. Columbia University and Ohio State University. The latter saw the applications from China to the university's Fisher College of Business jump 30% between the 2010 and 2011 academic years. Meanwhile, new specialized master's programs appeal to students, particularly those from China, eager to delve deeper into a single subject and gain a credential to compete with the growing population of educated young adults, without taking much time out of the workforce. As previously stated, perhaps the most incredible figure is that some 90% of China's mega-rich want their children to study in the US, according to one recent study, not to speak of the top leaders' children, including the Party Chief, Xi, whose daughter studies at Harvard University. [Korn, 2012; Ark et al 2008; Casiano, 2011; Foadi, 2006; Lee, 2012; and Fischer, 2012].

When looking into the Chinese applicants' backgrounds, many schools find some outstanding characteristics the Chinese applicants possess. First, they are China's best students who are probably aware that if they attend universities in China, they may not be able to go to the best universities in the world. For

example, the recent QS ranking listed just 7 universities out of the top 100 that were situated within China and Hong Kong. Another recently published list from the Times of London has just 3 in the top 100. Even the best universities have been hit by scandals. Second, their parents are rich, and it may make more sense to aim for a US colleges, rather than letting their children go through the highly competitive transition from high school to preferred universities in China where the road from secondary to post-secondary education involves the dreaded hurdle of the strenuous national university entrance examinations. Unlike U.S. institutions that value candidates who present themselves as unique, their Chinese counterparts want students who excel on entrance exams that require years of rote learning and poses a strong grasp of math and science. Some critics say China’s state-run education system — promoted as the hallmark of Communist meritocracy — are being overrun by bribery and cronyism. Such corruption has broadened the gulf between the privileged and non-privileged classes-[Levin, 2012]. Third, these young individuals are ambitious and many want to go to Ivy League schools, a symbol for those parents who raise their children successfully. Fourth, they desire to learn more about critical thinking, and very importantly, they want to be exposed to things aside from just test taking. [Mellman & Hilburn, 2012; Henze & Zhu, 2012; Taylor, 2012; and Zhang, 2012].

The four leading English speaking destination countries – the U.S., the UK, Australia, and Canada – all witnessed sizable growth from 2002 to 2011. Figure 4 shows the total number of international students in these four countries in the 2010/11 school year. It is a surprise that the UK with about a fifth of the U.S. population, had 455,600 international students compared to the 723,277 international students studying in the U.S. that same school year.

Figure 4. The number of international students in the four leading English speaking destination countries, 2010/11.



Source: Data from the National Center for Education Statistics, <http://www.iie.org/Research-and-Publications/Open-Doors/Data/Special-Reports/Economic-Impact-of-International-Students>

Despite the continued growth of international enrollments in U.S. schools, the country’s share of globally mobile students has been steadily declining over the last decade, from the peak of 27% in 2002, to 20% in 2009, and a continued decline to 16.6% in 2010. Meanwhile, foreign students contributed more than \$21.8 billion to the U.S. economy in the 2011/12 academic year, through living and educational expenses [NAFSA, 2012]. Although the majority goes to the United States, other English-speaking countries such as Britain, Canada and Australia attract most of the rest. This has caused some concern for those in the U.S. who worry that the country might be losing its appeal among international students. The Chinese comprise 25.38% of all international students newly enrolled in American schools, or about one in every hundred American college students, which means that they and their families contribute more than \$4 billion to the American economy, according to the U.S. Department of Commerce [Mong, 2012]. How can the U.S. maintain its leadership position in this globally competitive market? Do American educators understand Chinese students?

METHODOLOGY

With the focal questions in mind, this research focused on Chinese students' motives for studying in the U.S. A survey was developed to investigate the issues related to the subject of this study, Chinese students' motives to leave their home country and study in the U.S. The following variables were based on literature reviews.

Variable Selection

The following variables serve as motives that affect Chinese students in their decision making for studying abroad from the literature review.

1. *Gain a new perspective on my own country.*
2. *Can attend a better school overseas, but not able to attend the schools I want due to Gaokao.*
3. *It is easy to be admitted by a foreign school.*
4. *It is also costly if I study in my home country.*
5. *My friends have gone abroad, so I would.*
6. *I want to be away from my country.*
7. *I must study abroad because my parents' wish.*
8. *There are more fields of studies offered by foreign schools.*
9. *Political easiness in programs abroad.*
10. *Better living conditions, housing, eating, and environmental, i.e. clean air, etc.*
11. *The educational system is better overseas.*

Hypothesis, test of hypothesis, and sampling

The hypotheses for this research are to find if there are any significant differences in the Chinese students' motives for choosing to study in the U.S.

- | | |
|-----------------|--|
| H ₁ | There is no significant difference for Chinese students to gain a new perspective between China and the U.S. |
| H ₂ | There is no significant difference for Chinese students to attend a better school either in China or in the U.S. |
| H ₃ | There is no significant difference for Chinese students to be admitted by a foreign school either in China or in the U.S. |
| H ₄ | There is no significant difference for Chinese students to attend schools either in China or in the U.S. as far as cost is concerned. |
| H ₅ | There is no significant difference for Chinese students to attend school either in China or in the U.S. because their friends have gone. |
| H ₆ | There is no significant difference for Chinese students to attend school either in China or in the U.S. as there is no difference between the two countries. |
| H ₇ | There is no significant difference for Chinese students for where their parents wish them to study. |
| H ₈ | There is no significant difference for Chinese students to find more fields of studies either in China or in the U.S. |
| H ₉ | There is no significant difference for Chinese students to find political easiness in programs either in China or in the U.S. |
| H ₁₀ | There is no significant difference for Chinese students living conditions, housing, eating, and environmental, i.e. Clean air, etc. either in China or in the U.S. |
| H ₁₁ | There is no significant difference for Chinese students between the educational systems in China and the U.S. |

Alternatively, there is significant differences in each of these hypotheses.

Due to the nature of this empirical study, the questionnaires were distributed to Chinese students in a large university campus in the Northeast of the United States for a convenient sampling. The respondents were asked to evaluate the selected variables in a five point Likert scale, with 5=most important, 4=important, 3=neutral, 2=not important, and 1=least important.

One sample Student's *t*-test. A *t*-test is any statistical hypothesis test in which the test statistic follows a Student's *t* distribution if the null hypothesis is supported. It is most commonly applied when the test statistic would follow a normal distribution if the value of a scaling term in the test statistic were known. When the scaling term is unknown and is replaced by an estimate based on the data, the test statistic (under certain conditions) follows a Student's *t* distribution. The estimate value for testing hypotheses in this study is 3 which are either important or not important. The one sample *t*-test requires that the dependent variable follow a normal distribution. When the number of subjects in the experimental group is 30 or more, the central limit theorem shows a normal distribution can be assumed. If the number of subjects is less than 30, the researcher should plot the results and examine whether they appear to follow a normal distribution. If the distribution appears to be non-normal, and/or if the number of test cases is significantly less than 30, then a one sample median test, which does not require a normal distribution, should be used to test the hypothesis. [Hamburg, 1977; Conover, 1980; Davis and Cosenza, 1985; SPSS^x, 2002; Wikipedia, 2012]. Five percent of the *t*-tests one tailed probability level was selected to signify the differences between preferences.

RESULTS

Over 200 respondents were surveyed at a college campus in the eastern U.S., with 87 completed responded for analyses, representing 43.5 percent of the total surveyed. Table 1 presents the general background information of the respondents.

Table 1. Backgrounds of the Respondents

Variables	Groups	Valid %
1. Age	<18	9.4
	18-35	90.6
2. gender	Male	58
	Female	42
3. Family annual income	<\$30k	21.4
	\$30-50k	27.4
	\$50-75k	17.9
	>\$75k	33.3
4. Education	College	83.5
	Graduate	16.5
5. Marital status	Married	8.2
	Single	91.8
6. Sources of financial supports	Parent	57.6
	Own saving	3.5
	Obtained scholarship or GA	18.8
	Combination of various sources	20
7. Number years studied in the U.S.	<1 year	17.6
	1 year	9.4
	1-2 years	8.2
	>2 years	64.7
8. How many schools did you apply to?	1 school	9.5
	2 schools	3.6
	3 schools	15.5
	>3 schools	71.4
9. If you took Gaokao, you stood at	top ¼	45.5
	top ½	51.5
	lower ½	3

It is noticeable that roughly a third of the Chinese who took the survey has a family income over US\$75K a year equivalent, and most of the students were born after 1978 when one child per family policy was initiated [Source: <http://healthland.time.com/2013/01/10/little-emperors/>.] Over 97 percent of the respondents took College entrance-exams and stood at the top 50 percent, while currently, over 50 percent of Chinese high school graduates are able to go to college in China. In comparison, in the U.S. over 70 percent of the high school graduates go to college [Source: <http://www.bls.gov/news.release/hsgec.nr0.htm>; Source: <http://zhidao.baidu.com/question/57277001.html>]. In another word, these respondents had alternatives for their college selections: either stay in China or go to the U.S.

Table 2 presents the test results of One-Sample *t*-Test, with means, *t* values, degrees of freedom, and significance of the tests.

Table 2. One-Sample *t*-Test Results, test value=3

	Mean	<i>t</i>	df	Sig.
1. Gain a new perspective on my own country.	3.36	2.33	83	0.02
2. Can attend a better school overseas, but not able to attend the schools I want due to Gaokao.	2.94	-0.38	79	0.71
3. It is easy to be admitted by a foreign school.	2.54	-3.44	83	0.00
4. It is also costly if I study in my home country.	2.46	-3.91	83	0.00
5. My friends have gone abroad, so I would.	2.33	-4.48	83	0.00
6. I want to be away from my country.	2.38	-4.12	83	0.00
7. I must study abroad because my parents' wish.	2.23	-5.65	83	0.00
8. There are more fields of studies offered by foreign schools.	2.81	-1.24	83	0.22
9. Political easiness in programs abroad.	2.48	-3.77	82	0.00
10. Better living conditions, housing, eating, and environmental, i.e. clean air, etc.	2.64	-2.51	83	0.01
11. The educational system is better overseas.	3.07	0.45	83	0.66

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The test results of One-Sample *t*-Test reject eight null hypotheses: *Gain a new perspective on my own country*, *It is easy to be admitted by a foreign school*, *It is also costly if I study in my home country*, *My friends have gone abroad, so I would*, *I want to be away from my country*, *I must study abroad because my parents' wish*, *Political easiness in programs abroad*, *Better living conditions, housing, eating, and environmental, i.e. clean air, etc.* In other words, these eight variables present that they are either more important or less important in Chinese students' motivations to come to the U.S.

In One variable- *Gain a new perspective on my own country*, the respondents indicate that it is significantly more important as a motive. This would recommend that researchers should focus on this motive, and further explore the issues related to it.

With regard to the other seven variables: *It is easy to be admitted by a foreign school*, *It is also costly if I study in my home country*, *My friends have gone abroad, so I would*, *I want to be away from my country*, *I must study abroad because my parents' wish*, *Political easiness in programs abroad*, *Better living conditions, housing, eating, and environmental, i.e. clean air, etc.*, the respondents express that these are less important. The insignificances of these variables should advise researchers that these may not be their primary research focus on Chinese students' motives for studying in the U.S.

The test results of One-Sample *t*-Test accept three null hypotheses: *Can attend a better school overseas, but not able to attend the schools I want due to Gaokao*; *There are more fields of studies offered by foreign schools*; *The educational system is better overseas*. In another words, the acceptances of these hypotheses recommend that the Chinese students do not view these issues differently.

What comes through from this search is that non-academic reasons are primarily driving Chinese students to study in the U.S. Cultural aspects and a desire to gain a non-Chinese world perspective emerge as primary motives for study in the U.S. This may be due to the understanding and realization by the Chinese of a global economy and the need to understand the 'internationalization' of business. These attitudes could also be considered to be consistent with attitudes of all affluent middle classes who have moved beyond daily sustenance and have achieved long term security.

LIMITATIONS AND FUTURE RESEARCH

While this study is limited by sample size and confined to Chinese students studying at one university in the northeast United States it does provide direction and insight for future researchers to build upon. The sample size can be accepted as a good representation of the motives of Chinese students who wish to study in the U.S. as the northeast United States has a large number of Chinese students (as opposed to a state with very few Chinese students where such a sample would be non-representative).

However, due to the limited sample size and issues addressed in this study, we believe that there are additional issues which need to be explored. Academic research on the motives of international student populations (4% of the total US college students), particularly Chinese students (about 1% of the total US college students) in the U.S. is limited. While much has been written in terms of their numbers and how universities are accommodating international students there is limited primary research on the understanding of 'why' Chinese students choose to study in the U.S. It is imperative in servicing this population that universities first understand the motivation behind studying in the U.S. as only then can colleges and universities hope to build programs to cater to the long term facilitation of this population.

Future empirical studies would better serve the advancement of knowledge in this area by increasing the sample size across numerous colleges, and broadening the scope by examining any differences in motivation in terms of major, public versus private colleges, and geographic location within the U.S. A further recommendation would be to look at any major differences between undergraduate and graduate Chinese students as well as differences between graduate Chinese who completed bachelor degrees in the U.S. and those who didn't.

The growing number of the Chinese students in the U.S. has raised some challenging questions for both educators and researchers. In the future, researchers will need to know more about: what are the expectations of these Chinese students when they land in the U.S.? Are their expectations met during their studies or after their studies? If their expectations are not met, what educators in the U.S. schools need to do?

REFERENCES

- Albrecht, C, Malagueno, R. Holland, D., and Sanders, M. (2012). *Cross Cultural Management: An International Journal*, 19(4), 433-454.
- Ark, B. v., O'Mahony, M. and Timmer, M. P. (2008). The Productivity Gap between Europe and the United States: *Trends and Causes Journal of Economic Perspectives*, 22(1), 25-44.
- Casiano, M. A. (2011). U.S. Economy Shows Continuing Signs of Strength. *Caribbean Business*, March 3, 2012.
- Choudaha, R. and Li, C. (2012). Trends in International Student Mobility, *World Education News and Reviews*, 25(2), 1-20.
- The Chinese-American Museum of Chicago (1880)*. Comparing Japanese and Chinese Students at U.S. Universities.
- Conover, W. J., *Practical Nonparametric Statistics*, 2nd ed., New York: John Wiley & Sons, 1980: 213-337 & 344-384.
- Davis, D., & R. M. Cosenza, *Business Research for Decision Making*, Boston, Kent Publishing Company, 1985.
- Fischer, K. (2012). Chinese Students Account for About Half of All International Applicants to U.S. Graduate Programs, *the Chronicle of Higher Education*, April 3.
- Foadi, S. M. (2006). Key Issues and Causes of the Italian Brain Drain. *The European Journal of Social Sciences*, 19(2), 209-223.
- Hamburg, M. *Statistical Analysis for Decision Making*, 2nd ed., Harcourt Brace Jovanovich, Inc., New York, 1977, pp. 219-538.

- Henze, J. and Zhu, J. (2012). Current Research on Chinese Students Studying Abroad, *Research in Comparative and International Education*, 7 (1), 90-104.
- Joseph, F. (2012). Overseas colleges fight for Chinese students, *CNTV*, October 19.
- Korn, M. (2012). Change in GMAT Equation: Chinese Flock to the Test, *the Wall Street Journal*, September 23, 2012.
- Lee, E. (2012). Number of Chinese Students in US Dramatically Expands, *Voice of America*, October 12.
- Levin, D. (2012). A Chinese Education for a Price, *NY Times* November 21.
- Marmolejo, F. (2012). Trends in International Mobility of Students: a Wake-Up Call for the U.S.? *Chronicle of Higher Education Blog*, posted on September 25.
- Mellman, I. and Matthew H. (2012). Chinese Education System Lags, Expert says, *Voice of America*, July 05.
- Mong, A. (2012). Chinese applications to U.S. schools skyrocket, *MSN*, January 11.
- NAFSA (2012). The Economic Benefits of International Students to the U.S. Economy Academic Year 2011-2012, source: <http://www.nafsa.org>.
- Sood, S. (2012). The statistics of studying abroad, *BBC*, September 26.
- SPSS^X, *Advanced Statistics*, 7.5. Chicago, IL: SPSS Inc. 2002.
- Taylor, A. (2012). Three Reasons China's Students are Desperate to Study in America, *Business Insight*, October.
- Wang, J. (2012). China Sends More Students Abroad Than Any Other Country, *The Epoch Times*, September 21, 2012
- Wikipedia, 2012 http://en.wikipedia.org/wiki/Student's_t-test; Source: http://www-users.cs.umn.edu/~ludford/Stat_Guide/1_Sample_t.htm
- Yan, Y. (2012). Foreign Education, Chinese Dream, *Beijing Review*, March 1, 2012
- Zhang, Y. (2012). 90% Of China's Super-Rich Want to Send Children Abroad, *International Business Times* (<http://www.ibtimes.com>), April 07.

CHINESE OUTWARDS INVESTMENT AND ITS IMPACT ON AUSTRALIA

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ABSTRACT

Chinese investment along with Chinese exports, are growing rapidly and even strategically throughout the globe in an unstoppable manner. Much of this has occurred since China's entry into the World Trade Organisation (WTO). In bilateral terms, Chinese investment in Australia has long been desired yet at the same time treated with caution. While Chinese investment has been focused on Australia's mineral resources, the moment this investment ventured into food or agriculture, there would be uproar in Australia on the potential for Chinese domination. The purpose of this paper is to explore how Australia perceives Chinese investment and responds to this growing level of Chinese investment in the world and in Australia.

INTRODUCTION

After the reforms and opening up of the Chinese economy in the late 1970s, China found itself with insufficient capital itself to engage in production and manufacturing. This was alleviated with its joint venture investment attraction schemes to global investors which opened up the Chinese economy and at the same time provided China with much needed technology transfers and capital for production. In less than twenty years and partially as a result of these investment schemes, China saw phenomenal growth across infrastructure, manufacturing and export industries. Such rapid growth has been linked to China's rapid economic growth leading to increased activities in international imports, exports and investments.

With growing inward investment, it was only a matter of time before China started to engage in outwards investment which also started to take off in the late 1970s, focusing mainly on small investments in developing countries such as Africa. China continued as a benefactor in these developing markets and is moving into all segments of the global economy in that region (UNCTAD, 2013). One of these locations of investment expansion includes that of Australia – the theme of this paper.

Consequently, Chinese outwards FDI has grown rapidly and recent data from UNCTAD (2009) puts China among the top five providers of FDI in the world—ahead of Japan—and is also the single largest developing country undertaking outwards FDI. By the end of 2009, a total of 6,298 Chinese MNEs were operating in more than 160 countries with a total stock of outwards FDI estimated at US\$ 184 billion, compared to only US\$ 23 billion in 2002 (MOC, 2009).

Such phenomenal increases have attracted renewed attention from international business scholars on the subject. Although a plethora of research exists on outwards FDI in general, most are concerned with outwards FDI from advanced industrialized countries. Outward foreign direct investment by emerging and developing market economies over the last decade such as China is a relatively new research area (UNCTAD, 2009) although some limited research on FDI from “third world” countries dates back to the 1970s (Heenan & Keegan, 1979; Yeung, 1995).

The aim of this paper is to explore and ascertain the nature and direction of Chinese investment in Australia, why it has a “schizophrenic” view of this investment and the hue and cry which certain forms of Chinese investment solicit. Moreover the investment trend has focused around strategic products and resources aimed at supporting its industrial base or with intentions of power accumulation.

CHINA'S OUTWARDS INVESTMENT

Research on outwards investment from developing countries remains poorly-developed as it is a relatively

recent phenomenon. As a result, investments from developing countries to advanced industrialised countries is poorly understood and questions regarding the motivations of MNEs from developing countries investing in developed countries remain unanswered. Therefore it is timely for the researchers of this paper to pursue this area in order to fulfil the gap.

In 2002 investments from China accounted for only 0.5 per cent of world FDI flows and 0.29 per cent of world FDI stock. By 2008 China had improved its global investment position to account for 3.3 per cent of flows and 1.24 per cent of stock, on a global scale China remains a small contributor relative to its dominant position as a recipient of inward FDI and as a net exporter of manufactured goods to the world (Morck, Yeung, & Zhao, 2008). By way of example by April 2013, China's total exports reached US\$ 1.871 trillion (Economics, 2013). During the same period, China has enjoyed a trade surplus every year which measured an estimated US\$ 298 billion in 2008 alone (MOC, 2009). In the same year China's total outwards investment amounted to US\$55 billion. Given China's growing economic power through exports, large trade surpluses and substantial foreign exchange reserves, its potential to expand outwards FDI remains strong (UNCTAD, 2009). By 2012, China's total OFDI was 62.4 billion, 0.8 per cent of the world total FDI (OECD, 2013). Although its outward investment is still small in absolute terms, especially compared to the huge inward flow, China's overseas enterprises have been quietly gaining importance as new sources of international capital (Wong & Chan, 2003). The growth of Chinese investments has attracted a great deal of tension in the recent years due to its rapid growth as well as the fact that much Chinese outward investment emanates from the State owned corporations or enterprises.

THE ROLE OF CHINESE GOVERNMENT POLICIES

The activities of MNEs globally are often subject to political influence (Buckley & Freeman, 1998), and in China MNEs are seen with even greater political influence than in normal market economies. MNEs are often viewed as large corporations capable of transferring valuable knowledge, skills and capital while also providing jobs to locals. In this respect, host governments often attempt to attract MNEs by providing local business conditions favourable to MNEs through MNE-friendly policies.

Two such policies in recent years in China are believed to have acted as a major trigger for numerous Chinese MNEs, particularly state owned enterprises, to go overseas. The first development was the 'Go abroad' policy introduced by President Jiang in March 2000 which is believed to have been a major catalyst for many Chinese MNEs, particularly those belonging to state owned enterprises, to venture offshore and 'experience' international competition (Buckley & Freeman, 1998). These MNEs did so with the political and financial support of the Chinese Government and the vast international networks and Chinese diaspora. For these and other reasons, Chinese investments in many parts of the world, including in Australia's resource sector, is regarded with suspicion.

The second Chinese Government policy which acted as an incentive to 'go abroad' was the overseas investment by Chinese nationals under the title of the Qualified Domestic Institutional Investor (QDII) Scheme implemented in 2005 (MOC, 2005). Under this scheme, it became easier for Chinese nationals to undertake foreign portfolio investments in equities and equity funds. Although portfolio investments are different from FDI, this policy was a further indication of the Chinese Government's proactive role in increasing China's investment in foreign businesses and, broadly speaking, to encourage domestic capital to be invested overseas. Although the role of proactive government policies in influencing FDI is not new, its use by governments of developing countries to encourage outward FDI is a new phenomenon.

THE SIGNIFICANCE OF CHINESE OUTWARDS INVESTMENTS

China is the largest investor among the BRICS countries, with a total of nearly \$425 billion in FDI stock worldwide. However the investment to other BRICS countries accounts for only 2.2 per cent of the total. South Africa and the Russian Federation have been important targets of outward FDI from China. With FDI stocks of US\$4.1 and US\$3.8 billion, respectively, by the end of 2011, the two countries were the eighth and ninth largest recipients of Chinese FDI (Cao, 2013).

The services sector accounts for a major share of Chinese FDI stock in Brazil and India. At the stock level, the amounts of Chinese FDI in Brazil and India were comparably small, at US\$1.1 billion and US\$657 million respectively, but their recent flows have been high, in particular in the Brazilian M&A market, only behind acquirers from the United States. For example, China Petrochemical Corp. (Sinopec) made a big upstream acquisition in Brazil in 2010 for US\$7.1 billion, though the value of which is not necessarily all translated into FDI (Cao, 2013).

CHINESE INVESTMENT IN AUSTRALIA

In Australia Chinese investment has grown significantly in the last two decades. By the end of 2012, China's total accumulated investment reached \$US51 billion (\$49 billion) in Australia, followed by \$US50.7 billion in the USA and \$US36.7 billion in Canada. Other major recipients of Chinese investment included Brazil and Russia. According to KPMG, Chinese direct investment into Australia grew 21 per cent in the past year to \$US51 billion, up from \$US9.4 billion (KPMG, 2013) inwards investment.

Chinese investment in Australia is predominately in mining and resources to date and there were signs of greater diversification toward natural gas, agriculture and property. Mr Ferguson, the head of KPMG China practice in Australia, said a notable development was the increased proportion of investments by privately-owned Chinese companies in 2011. But the numbers show the shift was gradual. Private Chinese investors completed 26 per cent of all deals by number, and 13 per cent by deal value while historically State-owned enterprises accounted for about 94 per cent of deals by value (KPMG, 2013). "We are starting to see the next wave of Chinese investment in Australia being made by privately owned companies, and this trend will continue under the new investment visa program, which opens the door for high-net wealth Chinese investors," Mr Ferguson said (KPMG, 2013).

China has overtaken the U.S. and Japan to become Australia's top trade partner in 2007 (DFAT, 2008). Rapid growth in trade between the two countries has also been accompanied by rapidly evolving Sino-Australian relations, and bi-lateral economic, investment, cultural and political ties. According to the ABS, bilateral trade (exports and imports) in goods and services grew from US\$ 23 billion in 2003 to more than US\$ 73 billion in 2008. This represents an increase of more than 217 per cent over just six years. During the 2003-2008 period, Australian exports to China have grown more rapidly than Australian imports from China, with exports growing by 313 per cent compared to 158 per cent for imports. For the first time in 2008 Australia's exports to China (US\$ 37.2 billion) exceeded imports from China (US\$ 36.7 billion). Among the largest exports, iron ore and concentrates, coal and copper ores were the top three Australian exports to China in 2008 and accounted for more than 50 per cent (69 per cent in 2009) of the total value of Australian exports to China that year (Morck et al., 2008).

In the early 2000s, China started to change its procurement strategy from importing to acquiring controlling interests through FDI for the supply of key raw materials and energy resources. As a result, the stock of Chinese outwards investment in Australia increased from US\$ 0.4 billion to more than US\$ 3.4 billion between 2003 and 2008; an increase of more than 750 per cent. During the same period the annual flow of Chinese outwards investment to Australia increased from US\$ 0.03 billion to more than US\$ 1.9 billion—an increase of more than 6233 per cent. It is important to note that despite such rapid increases the stock and flow of Chinese OFDI in Australia still constitutes less than 3 per cent of total Chinese OFDI worldwide, making Australia a relatively small destination for Chinese outwards investment (Morck et al., 2008).

In 2011-2012, China's total investment in Australia totalled A\$16.2 billion. China now represents the third largest investor in Australia after America (A\$36.6 billion) and the UK (A\$20.3 billion). China has the largest number of investment approvals totalling 4,752 with the main areas being Mineral exploration and development (A\$10,505 million) and real estate (A\$4,187 million) (FIRB, 2012).

Statistics from the Chinese Ministry of Commerce indicate that in 2008 more than 73 per cent of China's outwards investment in Australia went into the resource sector, compared to 45 per cent the previous year (MOC, 2009). Investments in the services sector declined from 30 per cent to less than 6 per cent during the same period.

This trend is consistent with China's overall strategy of securing supplies of energy resources to support the continued growth of its industrial sector by acquiring such resources overseas rather than relying on imports. However, it is also clear that Chinese investments in the Australian resource sector is disproportionate to Chinese investments worldwide in mining, which accounts for only about 10 per cent of

its total FDI (MOC, 2009). It is also interesting to note that the Australian industries which have experienced rapid growth in Chinese FDI are also the same industries which are the top three exporters to China. This indicates China's strategy of reducing its reliance on imports for key industrial inputs by acquiring a controlling interests and ownership of such resources.

THE VIEW OF CHINESE OUTWARDS INVESTMENT

The view that China is strategically and permanently interested in Australian assets has been challenged by recent developments. Investment reports recently released indicate that China may not always be keen on pursuing investment in Australia. According to a recent media report China has already begun to look elsewhere for investment (Wen, 2013). The report indicates: "Australia's status as a favoured destination for Chinese direct investment is being eroded by increasing competition from countries such as the United States and Canada" (Wen, 2013).

An even more recent report has highlighted the Chinese attraction to Canada as a source of collaboration and investment in the area of mineral resources (KPMG, 2013). These developments were also in contrast to the much-vaunted launch of the Asian Century white paper by the Gillard government in 2012 which assumed that Chinese interest in Australia resources was without risk and almost guarantee (DPMC, 2012). This scenario undoes much of the thinking in Australia about Chinese dependency on Australian resources.

China has a different approach towards its neighbours and security than that expressed by the Australian White paper. While China has evident strategic global interests they present themselves in far different terms than those of Australia or other western governments. As summarised by one observer and significantly different from that expressed in the White Paper. It stated:

"In short, our goal is to integrate the interests of the Chinese people with the common interests of the rest of the world, expand the convergence of interests with other countries and build communities of interests with other countries, so China and the rest of the world can realize peaceful development" (Zheng, 2013, p. 8).

DRIVER FOR CHINESE INVESTMENTS INTO AUSTRALIA

In Australia, there has been a gradual liberalisation of investment rules over the last 20 years, making Australia a more attractive location to invest in and also making Australia more MNE-friendly. Changes include the loosening of investment administrative processes and tax rules relating to foreign businesses. Together with the two major policies implemented in China, a trend of outwards investment has certainly been one of the major drivers for Chinese outwards investment.

More relevantly, China's focus in the resource sector provides China with two outcomes which clearly aligned its strategy:

1. To secure the supplies of valuable and scarce raw material and inputs necessary to sustain its international competitiveness in the global market place;
2. To continue supply its ever growing economy domestically to fulfil the needs of the domestic market.

Security of access for rare resources through control and ownership by undertaking FDI is a long-term and effective method.

The stable political environment in Australia and the evolving Sino-Australian political and economic relations suggest that Chinese outwards FDI in Australia is still in its infancy and is likely to increase substantially over the coming years to reflect the growing trade relations between the two countries. Given that consumer demand in China is likely to continue to grow and that China's export manufacturing sector will also continue to grow, there will be increased pressure on Chinese MNEs to secure long term supplies of raw materials and energy—both of which are in abundant supply in Australia. Thus, Chinese OFDI in Australia is likely to accelerate further in the future driven by resource seeking and strategic asset seeking motives as well as aggressive government policies which encourage Chinese MNE activities abroad.

THE FUTURE OF CHINESE INVESTMENT IN AUSTRALIA

China will continue to pursue its own national interests and it has already defined the future scenarios. In China Daily it stated:

“International relations are complex and many different factors are at play. However, major countries have only three options before them. The first is to adopt a Cold War mentality and to engage in Cold war strategies. The second is to engage in local hot wars as another world war is not possible. The third is to build communities of interests for common development. History has shown us that the first two options should be rejected. As globalisation deepens, countries around the world are facing common and completely new challenges. It would be dangerous if any country responded to these global challenges in the first half of the 21st century with the old mindset and old strategies employed before the 1970s (Zheng, 2013, p. 8)”

From the Australian government perspective, Chinese investment is declared to be welcome in all sectors though public opinion as expressed in a 2012 Lowy Institute poll found that 81 per cent of Australians were against the Australian government's allowing foreign companies to buy Australian farmland (Edwards, 2012). More recently, Australian firms have been looking at Chinese investment in a range of areas such as agriculture. ‘As Australia's mining boom runs out of steam, the long dormant agricultural sector is expected to be the country's next engine of growth’ (Edwards, 2012). This is also in line with the Asian Century white paper aiming to build Australia into ‘the food bowl of Asia’. From Australian perspective, the Asian Century white paper is the broader strategic roadmap for Australia on its engagement with Asia and in specific with China. The latest investment migration visa category 888 (FIRB, 2012) is a very clear indication of investment strategy for Australia.

"Australia's reputation for quality and its strong regulatory system place it as an attractive agroddestination for Chinese businesses and investors. However, despite this enormous opportunity for growth, a great deal of fear exists among Australians regarding food security, foreign investment and the potential for a monopoly and pricing interference," economic expert Thomas said (Edwards, 2012).

The view that China is strategically and permanently interested in Australian assets has been challenged by recent developments. Investment reports recently released indicate that China may not always be keen on pursuing investment in Australia. According to a recent media report China has already begun to look elsewhere for investment (Wen, 2013). A 2012 report by accounting firm KPMG and the University of Sydney noted that China had begun looking elsewhere to invest. The report stated:

"The USA and Canada in particular are catching up with Australia. While Australia's accumulated Chinese direct investment is still ahead of its main international competitors, there is no denying that the rest of the world is hot on our heels and aggressively competing for Chinese capital" (KPMG 2012).

An even more recent report has highlighted the Chinese attraction to Canada as a source of collaboration and investment in the area of mineral resources. This was confirmed in another media report which stated:

"Chinese mining companies have long been attracted to Australia, due to its proximity to China and rich deposits of iron and coal, but attention is shifting to Canada thanks to the government's raising of limits on foreign investment in natural resources" (Lok, 2013).

CONCLUSION

The desire by Australia to attract foreign direct investment has been a national priority and deemed in the national interest. However when it comes to Chinese inward investment, at times these sentiments of its “openness” has been wanting. The moment Chinese investment touched sectors outside of the mineral resources, howls of complaints arose indicating that the welcome mat was not always offered. Much of this concern mirrors the same fears that Australia experienced during the 1980s with Japanese investment in North Australia. Today that investment has all but dried up and returned home. The outcry from segments of Australian society over Chinese investment in Australia flies in the face of the much-vaunted launch and sentiment of the “Australia in the Asian century” White Paper sentiment emanating from the Gillard government in 2012 which assumed that Chinese interest in Australia resources was without risk and almost guaranteed. Moreover Chinese investment is expanding to areas outside of mining. This scenario undoes much of the thinking in Australia about Chinese dependency on Australian resources.

In conclusion the future for Chinese investment in China is a confronting and challenging development to many in Australia. Old legacies and prejudices emerge and the Australian “open economy” discourse takes a back seat. Australia has little luxury in demonstrating its “protectiveness” of its economy along the lines which was once defined as “selling the farm”. Like the case of Japan, not appreciating the investment and placing unacceptable conditions could cost Australia dearly.

REFERENCES

Buckley, P., & Freeman, N. J. (1998). Vietnam’s country funds: An Emerging Investment Vehicle. In Buckley (Ed.), *International Strategic Management and Government Policy*. New York: St. Martin’s Press.

Cao, Heping. (2013, 28 March 2013). Brics 'set to be a global force, *China Daily*.

DFAT. (2008). Annual Report 2007-2008: Department of Foreign Affairs and Trade.

DPMC. (2012). Australia in the Asian Century White Paper: Department of the Prime Minister and Cabinet. Economics, Trading. (2013). China Exports. from <http://www.tradingeconomics.com/china/exports>

Edwards, Christian. (2012). Australia's agriculture sector could benefit from China's economic boom. *China Securities Journal*.

FIRB. (2012). Foreign Investment Review Board Report 2011-2012: Foreign Investment Review Board.

Heenan, D., & Keegan, W. . (1979). The Rise of Third World Multinational. *Harvard Business Review*(Jan-Feb), 101-109.

KPMG. (2013). Australia remains favoured destination for Chinese investment <http://www.kpmg.com/au/en/issuesandinsights/articlespublications/press-releases/pages/press-release-australia-favoured-chinese-investment-15-mar-2013.aspx>

Lok, E. (2013). New frontier of resource wealth beckons Chinese. http://www.chinadaily.com.cn/cndy/2013-04/02/content_16367284.htm

MOC. (2005). *Statistical Bulletin of China’s Outward Foreign Direct Investment*. Beijing, China: Ministry of Commerce.

MOC. (2009). *Statistical Bulletin of China's Outward Foreign Direct Investment*. Beijing, China: Ministry of Commerce.

Morck, R, Yeung, B, & Zhao, M. (2008). Perspectives on China's Outward Foreign Direct Investment. *Journal of International Business Studies*, 39(3), 337-350.

OECD. (2013). FDI IN FIGURES. <http://www.oecd.org/daf/inv/FDI%20in%20figures.pdf>

UNCTAD. (2009). World Investment Report 2009. http://unctad.org/en/docs/wir2009_en.pdf

UNCTAD. (2013). Global Investment Monitor: THE RISE OF BRICS FDI AND AFRICA (Special Edition ed.): UNCTAD.

Wen, P. (2013). China looks elsewhere to invest, *Business Day*.

Wong, J., & Chan, S. (2003). China's Outward Direct Investment: Expanding Worldwide. *International Journal*, 1(273).

Yeung, H. . (1995). *Hong Kong Transnational Corporations in ASEAN: A Business Network Perspective*. Unpublished PhD Dissertation. UK: University of Manchester.

Zheng, Bijian. (2013). Concurrence of interests, Newspaper, *China Daily*.

THE INFLUENCE OF EIGHT INTERNAL MARKETING ELEMENTS ON BRAND AWARENESS IN THE SERVICES SECTOR – A DEVELOPING ECONOMY PERSPECTIVE

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ABSTRACT

The internal marketing mix for services typically consists of seven elements (product, price, place, promotion, people, processes and physical evidence). In this study another element, performance, was added to the mix to determine the influence of these eight elements on the brand awareness as perceived by customers of car rental companies in South Africa. Although car rental companies may have a strong brand position, the brand's successful awareness depends on the role the employees play in delivering the service (Wilson, Zeithaml, Bitner & Gremler, 2012, p.249). This research aimed to provide guidance to South African car rental companies to improve their respective brand awareness, enabling them to expand customer bases whilst retaining existing customers through improvement of internal marketing programmes.

INTRODUCTION

The internal marketing mix for services typically consists of seven elements (product, price, place, promotion, people, processes and physical evidence). In this study another element, performance, was added to the mix to determine the influence of these eight elements on the brand awareness as perceived by customers of car rental companies in South Africa. Irrespective of the fact that service organisations, such as car rental companies, may have developed a well-conceived positioning for their brand, the brand's successful positioning and awareness depend on the role the employees play in delivering the service (Wilson, Zeithaml, Bitner & Gremler, 2012, p.249; Pappasolomou & Vrontis, 2006, p.39). In order to achieve the goal of internal marketing, service organisations need to recognise that marketing strategies should not only be aimed at external customers, but should also be implemented internally and achieve better internal communication. This research aimed to provide guidance to South African car rental companies to improve their respective brand awareness, enabling them to expand customer bases whilst retaining existing customers through improvement of internal marketing programmes.

LITERATURE REVIEW

The traditional marketing mix for products consists of the well-known four elements, product, price, place and promotion. A key factor distinguishing the services marketing from the marketing of physical products is the human element. The distinctive characteristics of services require the addition of three more Ps to overcome the limitations of the traditional marketing mix (Wilson et al., 2012, p.23; Mudie & Pirrie, 2006, p.6). The elements of the three additional Ps of the marketing mix are:

- People – the appearance and behaviour of service personnel;
- Process – how the service is delivered, the actual procedures and flow of activities; and
- Physical evidence – everything from the appearance, design, layout of the service setting, to brochures,

- Physical evidence – everything from the appearance, design, layout of the service setting, to brochures, signage and equipment.

The unique characteristics of services cause customers to search for evidence of the service in each of their interactions with the organisation. The additional elements of the service mix, namely people, process and physical evidence, provide customers with that evidence and allow them to form their own judgement (Chen, Chen & Huang, 2012, p.107). Since employees are a powerful element tool of customer persuasion and a major parameter affecting the customer's perception on the delivered service quality, Grove, Fisk and John (2000, p.74) added performance of employees as another critical element to the marketing mix (Constantinides, 2006, p.421).

Kotler & Keller (2009, p.288) stated that marketing and branding theories support the idea that there is a functional connection between the marketing of services and the awareness of the brand. Establishing favourable brand awareness is an important factor to ensure business success (Park, Cho & Kandampully, 2009, p.134). Brand awareness refers to the strength of a brand's presence in the customer's mind. Awareness is measured according to the different ways in which customers remember a brand, ranging from recognition (exposure to the brand) to recall (what can be recalled about the brand) to first in the mind (the brand appearing first in the mind) and finally to dominant (the only brand recalled) (Aaker, 2004, p.10). Brand awareness is created by increasing the familiarity of the brand through repeated exposure and strong associations with the relevant cues enabling the customer to recall the brand effectively. Brand associations are divided into three major categories, these being attributes, benefits and attitudes (Keller, 2009, p.139). In this study attributes refer to the trustworthiness of the vehicles; benefits refer to perceived quality, translating into the overall evaluation of the service customers receive; and attitudes refer to the customer's loyalty towards the brand (Kapferer, 2005, p.149).

In order to enhance the brand awareness of a service organisation, the organisation has to adapt its marketing activities to mix and match the internal marketing mix elements that will reinforce the brand awareness (Song, Hur & Kim, 2012, p.332). Car rental companies need to implement internal marketing programmes that include at least some of the internal marketing mix elements to ensure employees deliver service excellence to customers, thereby improving the awareness of their brand amongst external customers. Customers who are aware of the brand of car rental companies and who receive excellent services should become committed to the company and will most likely remain long-term and loyal customers of the specific car rental company (Boshoff & Du Plessis, 2009, p.15). Since employees of car rental companies create the customer's perceptions and awareness of the brand during the service encounter, it is important that they are exposed to internal marketing programmes. If the programmes are implemented effectively, customers have a satisfactory experience and positive brand awareness is created.

Although most South African car rental companies' brands are well-known, formal research is required as it is not evident that internal marketing programmes are implemented in these companies. Furthermore, it is also not evident what the influence of internal marketing is on brand awareness of car rental companies as perceived by their customers.

PROBLEM STATEMENT

Although car rental companies have internal programmes, such as loyalty and other incentive programmes to motivate employees, the success of these programmes have not been researched nor linked to the internal marketing elements applicable to this study (First Car Rental, 2011; Hertz, 2011; Avis, 2009). Furthermore, despite a strong interest in internal marketing research amongst marketing researchers, little research has been conducted related to brand awareness in service brands (Song et al., 2012, p.331). This is relevant because if all elements of the internal marketing mix do not contribute positively to the overall brand awareness of car rental companies in South Africa, it could receive reduced attention, which could damage the overall image of the brand of the car rental company. Additionally if certain activities demonstrate ineffectiveness, they could be altered and improved, thereby creating more competitiveness for car rental companies. Customers in a services environment become aware of the brand through their experience during consumption of the service, which is created by employees of the organisation. This raises the question of whether the internal marketing (internal product, price, promotion, place, people, processes, physical evidence and performance) presented to employees have a positive influence on brand awareness (brand recognition, trustworthiness, overall evaluation and loyalty) as perceived by the external customers of car rental companies.

RESEARCH OBJECTIVES

The primary research objective is to determine the perceived influence of eight internal marketing mix elements on the brand awareness of selected car rental companies in South Africa.

The secondary research objectives are:

- To determine whether there is a difference between the perceived influences of the eight internal marketing mix elements on brand awareness of selected car rental companies in South Africa.
- To determine which of the eight internal marketing mix elements have the largest influence on brand awareness of selected car rental companies in South Africa.

RESEARCH METHODOLOGY

The research format was described as descriptive research. As the objectives of this research were to describe a current situation, a cross-sectional format was appropriate. The target population in this study includes car rental companies in South Africa. Although seven car rental companies, namely Avis, Budget, Europcar, First Car Rental, Hertz, Tempest Sixt and Thrifty, were invited by the researcher to participate, only three agreed to participate, namely Avis, First Car Rental and Hertz. Therefore, the sampling unit for this study included customers of Avis, First Car Rental and Hertz over a period of three months. Probability sampling in the form of directly proportional stratified sampling was used in terms of selecting only customers of the three car rental companies, not including employees, because customers are directly influenced by the branding of car rental companies. Directly proportionate stratified sampling was used in the study, as the goal was to draw a probabilistic sample from a population to describe the population's characteristics or parameters, based on statistics calculated from the sample. The sample unit that was used in the study included customers who rented cars from the Avis, First Car Rental and Hertz over a period of three months, which included business and holiday months. The sampling elements were customers of Avis, First Car Rental and Hertz who rented vehicles at airports, namely OR Tambo, Cape Town, Durban, Bloemfontein, Port Elizabeth, East London, George, Nelspruit, Kimberley and Lanseria, and city branches, including Johannesburg, Cape Town, Durban, Bloemfontein, Port Elizabeth, East London, George, Nelspruit and Kimberley. The airports and related cities were identified as the major airports in South Africa and therefore they were selected for this study. The required sample size of respondents for structural equation modelling was between 375 and 750 and the actual sample size was 581. The data collection was conducted by means of a survey. A five-point Likert scale, ranging from 'strongly disagree' to 'strongly agree', was used for all questions within the questionnaire (Vagias, 2006, p.1). Structural equation modelling (SEM) was the statistical technique used for the empirical investigation because SEMs are well recognised as the most important statistical method to evaluate a series of simultaneous hypotheses about the impacts of latent variables and manifest variables on other variables, and take the measurement errors into account (Lee, 2007, p.1).

FINDINGS

The findings from the SEM analysis are described next:

- *Process had a significant and strongest influence on all four dependent variables, namely brand recognition ($p = 0.014$), trustworthiness ($p = 0.001$), overall evaluation ($p = 0.033$) and loyalty ($p = 0.043$).*
- *Performance had a significant influence on trustworthiness ($p = 0.000$), overall evaluation ($p = 0.026$) and loyalty ($p = 0.001$).*
- *Performance and trustworthiness were the second strongest relationship ($p = 0.000$).*
- *There was a strong relationship between performance and loyalty ($p = 0.001$).*
- *Physical evidence was the factor that had the smallest or lowest influence on brand recognition ($p = 0.723$) at a 0.05 level of significance.*
- *People (employees) had a negative influence on brand recognition ($p = 0.081$), trustworthiness ($p = 0.078$), overall evaluation ($p = 0.183$) and loyalty ($p = 0.082$).*

The fact that people (employees) had a negative influence on brand recognition, trustworthiness, overall evaluation and loyalty was an interesting finding, since the literature states that employees played a significant role in creating a positive customer experience, especially in a services industry. This means that car rental companies have to focus more on employees to ensure that they are correctly trained and equipped to deliver a positive service experience. Based on the findings of the research, the hypotheses were accepted.

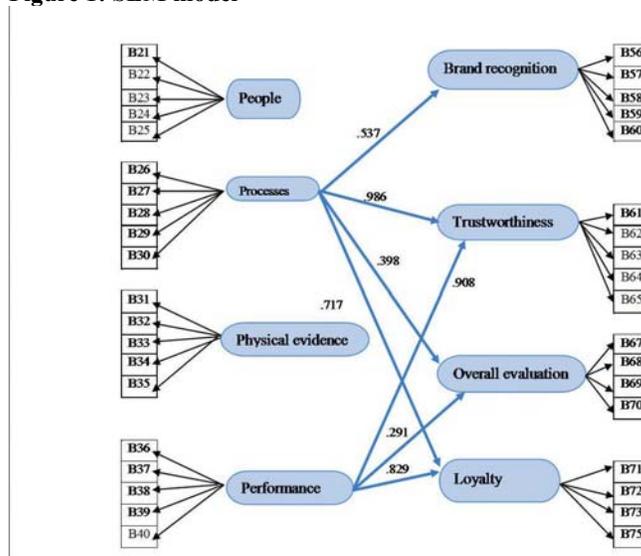
Since the traditional marketing mix elements, namely product, price, promotion and place did not have a significant influence on brand awareness constructs, the null hypothesis for traditional elements is accepted. The alternative hypotheses of the services internal marketing elements, including the recently added element (performance) were accepted due to the difference in influence and difference in the level of influence of the services elements on brand awareness constructs. The accepted hypotheses are as follows:

There is a *difference in the influences* of the services internal marketing elements (*people, process, physical evidence and performance*) on brand awareness (*recognition, trustworthiness, overall evaluation and loyalty*) of selected car rental companies in South Africa.

There is a *difference between the level of influence* of the services internal marketing elements (*people, process, physical evidence and performance*) on brand awareness (*recognition, trustworthiness, overall evaluation and loyalty*).

Based on the final results of the SEM and hypotheses testing, the final SEM model is depicted in Figure 1. Due to the complexity of the model and space constraints, the arrows and circles that connect the errors with the scale items were not indicated in the Figure. The negative relationships and influences were also not included in the figure, as well as the positive influences, which were not statistically significant.

Figure 1: SEM model



MANAGERIAL IMPLICATIONS FOR CAR RENTAL COMPANIES

The findings of the study indicated some areas where car rental companies could improve their internal marketing efforts to enhance the overall brand awareness of the company as experienced by customers.

The most significant findings indicated that internal processes followed by car rental companies influence customers' perception of brand recognition, trustworthiness, overall evaluation and loyalty. Car rental companies should therefore ensure that their processes are of high standard to retain existing customers and to build their reputation to attract new customers. Car rental companies provide accessibility through numerous branches nationally and some internationally and thereby increase the accessibility of their services and products to customers. However, all branches have to ensure that their processes are well planned, consistently implemented and coordinated throughout the organisation. The internal process has to be reliable and must have integrity to provide a satisfying experience to the external customer in delivering

the service or product. Car rental companies should review their internal processes from time to time and make improvements where required. Feedback from customers is also very valuable to assess if existing internal processes have a positive effect on the service delivery to customers. If car rental companies ensure that processes are functioning optimally, customers will regard them as trustworthy.

Customers of car rental companies regarded internal performance of the car rental company as very important. This implies that if car rental companies improve their performance and ensure that such performance is of a high standard, customers will trust the car rental company. Customers that regard their car rental company as trustworthy ultimately results in customers being loyal towards the car rental company.

Employees of car rental companies play a significant role in the performance of the organisation, and car rental companies will only be able to perform well if their internal performance is managed effectively. Employees should have the same values as the company and should be able to adopt the culture of the car rental company. Performance cannot be sustained if there is no measurement in place. Therefore, car rental companies have to measure employee performance, as well as the overall performance of the organisation.

Constructive feedback from employees should be encouraged and management and employees should be committed to each other. They should also have fun together, be helpful and compassionate about one another. Employees who are satisfied tend to put more effort in to ensure that the organisation performs better, and therefore continuous training and performance measurement are imperative to increase the car rental company's overall performance. Furthermore, satisfied employees who are motivated to perform well, create satisfied and loyal customers who have trust in the organisation.

SUGGESTIONS FOR FUTURE RESEARCH

Future research regarding the topic of the research can be extended to include employees of car rental companies and comparative studies can be conducted between employees and customers. The research can also be extended to other services industries, such as the banking or insurance industries, and comparisons between those studies and this study can be drawn. The model and measuring instrument of this study can be applied to other industries, for example, the tourism and hospital industries could perhaps benefit. It is also possible that other constructs, not included in this study, can have an influence on the brand awareness of car rental companies' customers.

CONCLUSION

The model developed through the findings of this study provides car rental companies with guidance on which internal marketing elements are important for positive brand awareness as perceived by their customers. In addition to the model, the study indicated that car rental companies should implement strategies to improve their internal marketing programmes. These strategies will contribute to improvement of employees' satisfaction and subsequently customer satisfaction. Satisfied customers will remain customers of their car rental company and ultimately profits and competitiveness of the particular car rental company will prosper. Car rental companies function in a very competitive industry and therefore they should recognise the importance of the brand awareness they are creating with customers. They are also participating in a global economy. Should they succeed in ensuring positive brand awareness, employees, customers and car rental companies and the whole economy of South Africa will eventually benefit from their successes.

REFERENCES

- Aaker, D.A. (2004). *Brand Portfolio Strategy: Creating Relevance, Differentiation, Energy, Leverage and Clarity*. New York: Free Press.
- Avis. (2009). *Avis car rental company*. Available from <http://www.avis.com>. (Accessed 31 August 2009).
- Boshoff, C. & Du Plessis, F. (2009). *Services Marketing: A Contemporary Approach*. Cape Town: Juta.

Chen, C., Chen, C.K. & Huang, C. (2012). Brands and Consumer Behaviour. *Social Behaviour and Personality*, 40, 105-114. Available from EBSCOHost: Academic Search Premier: <http://search.global.epnet.com>. (Accessed 7 January 2012).

Constantinides, E. (2006). The Marketing Mix Revisited: Towards the 21st Century Marketing. *Journal of Marketing Management*, 22, 407-438. Available from Emerald <http://www.emerald-library.com/Insight/viewContentItem.do>. (Accessed 29 July 2009).

First Car Rental. (2011). *About First Car Rental*. Available from First Car Rental: <http://www.firstcarrental.co.za>. (Accessed 22 February 2011).

Grove, S.J., Fisk, R.P. & John, J. (2000). *Handbook of Services Marketing and Management: Service as Theater, Guidelines and Implications*. London: Sage.

Hertz. (2011). *About Hertz*. Available from Hertz: <http://www.hertz.co.za>. (Accessed 22 February 2011).

Kapferer, J.N. (2005). *The New Strategic Brand Management*. London: Kogan-Page.

Keller, K.L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15, 139-155. Available from EBSCOHost: Business Source Premier: <http://search.global.epnet.com>. (Accessed 27 July 2010).

Kotler, P. & Keller, K.L. (2009). *Marketing Management*. 13th edition. New Jersey: Pearson Prentice Hall.

Lee, S.Y. (2007). *Structural Equation Modeling: A Bayesian Approach*. England: John Wiley and Sons.

Mudie, P. & Pirrie, A. (2006). *Services Marketing Management*. 3rd edition. Oxford: Elsevier.

Papasolomou, I. & Vrontis, D. (2006). Building corporate branding through internal marketing: the case of the UK retail bank industry. *Journal of Product & Brand Management*, 15, 37-47. Available from Emerald: <http://www.emerald-library.com/Insight/viewContentItem.do>. (Accessed 29 July 2009).

Park, S., Cho, S.H. & Kandampully, J. (2009). *The impact of brand image on brand attachment and the moderating influence on image congruence*. Paper presented at the 16th European Industrial Retailing and Service Sciences Conference, Niagara Falls, 6-9 July, 134.

Song, Y., Hur, W. & Kim, M. (2012). Brand trust and affect in the luxury brand–customer relationship. *Social Behaviour and Personality*, 40, 331-338. Available from EBSCOHost: Academic Search Premier: <http://search.global.epnet.com>. (Accessed 7 January 2013).

Vagias, W.M. (2006). *Likert-type scale response anchors*. Clemson: International Institute for Tourism and Research Development, Department of Parks, Recreation and Tourism Management. Clemson University.

Wilson, A., Zeithaml, V.A., Bitner, M.J. & Gremler, D.D. *Services Marketing: Integrating Customer Focus Across the Firm*. 2nd European edition. Berkshire: McGraw-Hill.

IMPROVING OPERATIONAL AND CLINICAL SUCCESS OF HOSPITALS AND HEALTHCARE FACILITIES WORLDWIDE: ADOPTION OF INTERNATIONAL STANDARDS RECOMMENDED FOR MONITORING WATERBORNE PATHOGENS

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ABSTRACT

Waterborne pathogens are found worldwide, and are a source of human discomfort and death. The sick are susceptible to waterborne pathogens. That is why hospitals, nursing homes and other medical facilities must be especially careful to have ongoing monitoring and water treatment. There are no international standards for medical facilities to protect patients, employees and visitors from waterborne pathogens. This can prove very costly to medical facilities, as healthcare-acquired infections can bring legal liability, civil penalties, loss of payment for medical treatment, loss of business due to diminished public trust, and generally poor public relations. The authors recommend a series of protocols to which healthcare facilities everywhere should ascribe. The authors further recommend that the World Health Organization, in tandem with governmental public health agencies and non-governmental organizations dedicated to healthcare, develop meaningful and straightforward waterborne pathogen testing and treatment protocols for all medical facilities across the globe.

“Without water monitoring we cannot be certain that drinking water does not contain any microorganisms known to be pathogenic” (World Health Organization, 1997).

INTRODUCTION

Microorganisms are found all around and in human beings everywhere. Microorganisms are essential for normal human existence. However, there are many microorganisms that are insidious, waiting in tainted water or food and that can severely compromise comfort, health and even life. Many times people become exposed to a microorganism through improperly cooked food or tainted water, and afterward feel uncomfortable – and often this feeling passes as the body’s natural defenses retake control. Human beings are exposed to a wide variety of tiny organisms, including bacteria, fungi and protozoa, as well as viruses and normally people are equipped with biological defenses that eventually overtake and control offending invaders.

This is not true in certain situations, however. Human beings are weakest when otherwise ill and perhaps fighting off one or more kinds of infection at the same time. Human beings are vulnerable in infancy and in the feeble older years of life. Human beings are susceptible to debilitating infection when the body’s immune response is reduced or absent (immunosuppression). The hospital represents a very real point of intersection for all of these sorts of risk factors, and therefore the healthcare facility should be the place where waterborne pathogens are least likely to be found. Unfortunately, this is often not the case. In too many situations, the healthcare facility is where patients and guests are introduced to otherwise avoidable waterborne pathogens.

Global Water Quality Problems – In General

Regardless of where one is traveling in the world, the usage of water in restaurants, hotels and other public places is largely a matter of faith. If one has a lot of faith or a daring sense of adventure, or perhaps a non-caring attitude, then few precautions generally are taken while traveling. If one has less faith, perhaps gained through hard experience over time, then generally greater precautions are taken with water usage while traveling. Seasoned travelers for example often choose not to drink water from the tap or to order drinks with ice, and many even purposely avoid ingestion of water while showering.

It has been estimated that up to eighty percent of the world's fresh water supplies are in danger from man-made interventions, such as overuse of water, pollution and exotic species introduction (Inman, 2010). There are hopeful signs in many countries with large densities of population, when policies are adopted to better "work with nature."

In the developed world, contaminants in surface water supplies take many forms. Industrial pollution, agricultural run-off and even disposed medicines have found their way into lakes, rivers and streams. The anti-depressant Prozac and its active ingredient fluoxetine have been discovered in Lake Erie in the United States, and this is having the effect of destroying normal microbial populations in the Great Lakes (Kaufman, 2011).

In developing world countries, the importance of securing clean drinking water is understood by nongovernmental organizations (NGOs), government and now business. In rural Punjab, India, near the Pakistani border, local citizens benefit from a for-profit model called Healthpoint which provides clean water and clinical visits with medical assistants (Ydstie, 2011). The Healthpoint model combines videoconferencing with a physician (perhaps hundreds of miles away), low-cost diagnostic tests and inexpensive water filtration, all in a single building. The poor in these environs have discovered that these are health measures even they can afford.

In developing countries, approximately four-fifths of all illnesses are caused by waterborne diseases, with diarrhea being the chief cause of childhood deaths. It is estimated that nearly 1.1 billion people still lack access to improved drinking water sources and some 2.4 billion people have inadequate access to proper sanitation. There is evidence that water, sanitation and hygiene-related diseases account for approximately 2,213,000 deaths annually and there is an annual loss of 82,196,000 Disability Adjusted Life Years (DALYs) (Lenntech, 2013). See Table 1 below for a list of waterborne pathogens and their significance to the world water supply (WHO, 2007).

Table 1: Waterborne Pathogens and Their Significance in Water Supplies^a

Pathogen	Health significance ^b	Persistence in water supplies ^c	Resistance to chlorine ^d	Relative infectivity ^e	Important animal source
Bacteria					
<i>Burkholderia pseudomallei</i>	High	May multiply	Low	Low	No
<i>Campylobacter jejuni, C. coli</i>	High	Moderate	Low	Moderate	Yes
<i>Escherichia coli</i> – Pathogenic ^f	High	Moderate	Low	Low	Yes
<i>E. coli</i> – Enterohaemorrhagic	High	Moderate	Low	High	Yes
<i>Legionella</i> spp.	High	May multiply	Low	Moderate	No
Non-tuberculous mycobacteria	Low	May multiply	High	Low	No
<i>Pseudomonas aeruginosa</i> ^g	Moderate	May multiply	Moderate	Low	No
<i>Salmonella typhi</i>	High	Moderate	Low	Low	No
Other salmonellae	High	May multiply	Low	Low	Yes
<i>Shigella</i> spp.	High	Short	Low	High	No
<i>Vibrio cholerae</i>	High	Short to long ^h	Low	Low	No
<i>Yersinia enterocolitica</i>	High	Long	Low	Low	Yes
Viruses					
Adenoviruses	High	Long	Moderate	High	No
Enteroviruses	High	Long	Moderate	High	No
Astroviruses	High	Long	Moderate	High	No
Hepatitis A viruses	High	Long	Moderate	High	No
Hepatitis E viruses	High	Long	Moderate	High	Potentially
Noroviruses	High	Long	Moderate	High	Potentially
Sapoviruses	High	Long	Moderate	High	Potentially
Rotavirus	High	Long	Moderate	High	No
Protozoa					
<i>Acanthamoeba</i> spp.	High	May multiply	Low	High	No
<i>Cryptosporidium parvum</i>	High	Long	High	High	Yes
<i>Cyclospora cayatanensis</i>	High	Long	High	High	No
<i>Entamoeba histolytica</i>	High	Moderate	High	High	No
<i>Giardia intestinalis</i>	High	Moderate	High	High	Yes

<i>Naegleria fowleri</i>	High	May multiply ^f	Low	Moderate	No
<i>Toxoplasma gondii</i>	High	Long	High	High	Yes
Helminths					
<i>Dracunculus medinensis</i>	High	Moderate	Moderate	High	No
<i>Schistosoma</i> spp.	High	Short	Moderate	High	Yes

Note: Waterborne transmission of the pathogens listed has been confirmed by epidemiological studies and case histories. Part of the demonstration of pathogenicity involves reproducing the disease in suitable hosts. Experimental studies in which volunteers are exposed to known numbers of pathogens provide relative information. As most studies are done with healthy adult volunteers, such data are applicable to only a part of the exposed population, and extrapolation to more sensitive groups is an issue that remains to be studied in more detail.

^a This table contains pathogens for which there is some evidence of health significance related to their occurrence in drinking-water supplies.

^b Health significance relates to the severity of impact, including association with outbreaks.

^c Detection period for infective stage in water at 20 °C: short, up to 1 week; moderate, 1 week to 1 month; long, over 1 month.

^d When the infective stage is freely suspended in water treated at conventional doses and contact times and pH between 7 and 8. Low means that 99% inactivation at 20 °C generally in <1 minute, moderate 1–30 minutes and high >30 minutes.

^e From experiments with human volunteers, from epidemiological evidence and animal studies. High means infective doses can be 1–10² organisms or particles, moderate 10²–10⁴ and low >10⁴.

^f Includes enteropathogenic, enterotoxigenic and enteroinvasive.

^g Main route of infection is by skin contact, but can infect immunosuppressed or cancer patients orally.

^h *Vibrio cholerae* may persist for long periods in association with copepods and other aquatic organisms.

ⁱ In warm water.

Adapted from “Waterborne Pathogens and Their Significance in Water Supplies,” by the World Health Organization, 2007.

“In the United States, microbiological organisms are common to tap water meeting the highest treatment and regulatory standards. While some of these organisms may be harmful to healthy individuals, others are considered acceptable “normal flora” of general water supplies but may cause serious disease in severely immunocompromised persons. Hospitals serve food and water to some of the most susceptible populations to chronic and deadly infections. Conservatively, it’s estimated one in 10 hospitalized patients will contract an infection from the hospital environment itself. These acquired infections are termed “nosocomial” and are a great concern to health care providers” (Reynolds, 2003, July).

Global Water Quality Problems – Healthcare Facilities

The problem of waterborne pathogens in healthcare facilities is a continuing worldwide problem, with serious and often lethal cases reported in the media. In Belfast, Ireland, for example, it was reported in early 2012 that four infants died in two hospital maternity wards due to hospital acquired infections (HAIs) from tap water contaminated with the *Pseudomonas aeruginosa* bacterium (McAdam, 2012).

A \$600 million class-action law suit was filed as a result of a Legionnaires’ disease outbreak at Seven Oaks Home for the Aged in Scarborough, Canada. While twenty-one residents died as a result of this outbreak, thirty employees, twenty-six visitors and four people who lived in the area were also afflicted (Parker, 2005).

An important study of a fungus *Exophiala jeanselmei* outbreak was conducted at the university hospital Universidade Federal do Rio de Janeiro 450 bed tertiary care hospital in Brazil. In this carefully controlled study, three main sources were determined: deionized water from the hospital’s pharmacy, a particular water tank, and water from a sink in a non-patient care area (Nucci et al., 2002).

A Japanese study looked at hot bath and shower accommodations in three hospitals and one nursing home, and most samples did not yield a positive result for targeted organism *Legionella pneumophila*. However, *Legionella* did have a positive match in one particular bathtub in one location. As a result, the investigators recommended that the concentration of chlorine in the water be increased from 0.1 mg/l to 0.2–0.4 mg/l, the amount otherwise required in public baths in Japan (Fujimura et al., 2006).

An outbreak of Legionnaires’ disease in a nursing home in Slovenia in August of 2010 affected 15 of 234 residents in the facility, and four patients were confirmed to have contracted Legionnaires’ disease.

The probable source of the contamination in the water supply was identified as the piping within the facility with “dead end” sections – a possible source of biofilms, etc. Chemical disinfection of the water supply was applied, and proper temperature control of water was affirmed (Trop Skaza et al., 2010).

Microorganisms attach to surfaces and develop biofilms. Biofilm-associated cells can be differentiated from their suspended counterparts by generation of an extracellular polymeric substance (EPS) matrix, reduced growth rates, and the up- and down- regulation of specific genes. Biofilms are homogeneous deposits of cells and accumulated slime, forming complex communities of surface-associated cells enclosed in a polymer matrix containing open water channels. Their distinct phenotype makes them resistant to antibacterial agents. Their matrix makes them resistant as well to the antibacterial molecules and cells mobilized by the host. Biofilms have great importance for public health because of their role in certain infectious diseases and in a variety of device-related infections. Biofilm infections can be “stealthy,” in that they develop slowly and initially produce few symptoms. In time, they may be very damaging because they promote immune complex sequelae and act as reservoirs for acute exacerbations (Donlan & Costerton, 2002). In addition, biofilm associated infections require a different approach, both clinically and para-clinically (Lazăr & Chifiriuc, 2010). There are many such cases reported in the international media. One can only ponder the probable greater number of unreported cases around the globe.

It is important to note that waterborne pathogens can infect individuals through the breathing process, as well as by other contact means. This situation was demonstrated by the Aurora, Wisconsin hospital that installed a decorative fountain in its lobby and then at least eight non-patient visitors to the lobby contracted Legionnaires’ disease by simply breathing in bacteria-laced water droplets produced by the fountain (Haupt et al., 2012). This occurred even though regular cleaning of the fountain was maintained.

The existing standards and regulations for control and prevention of water contamination in community water supplies seldom consider protection of special populations from waterborne nosocomial infections. A four-step approach to prevent nosocomial waterborne infections in healthcare facilities should be considered as important for immunocompromised patient populations (Anaissie, Penzak, & Dignani, 2002).

1. Reduce exposure—Minimize all immunocompromised patient’s exposure to tap water, regardless of documented presence of opportunistic organisms. Drinking water should be purchased sterile or boiled for three minutes. Distillation is also effective. Showers should be replaced with sponge baths.
2. Education of staff and patients—Implementation of existing infection control measures, i.e., hand sterilization, equipment sterilization and aseptic techniques.
3. Targeted surveillance—Monitoring infection rates of nosocomial illnesses and contamination levels of water system supplies.
4. Other measures—Heat treatment of water, i.e., maintain hot water at >60°C (although risk of scalding increases). Establish a maintenance schedule to repair and disinfect contaminated water systems at hospital sites including storage tanks, distribution lines, and filtration systems.

Additional other measures include hot water flushing of the plumbing system, chlorination, chlorine dioxide, monochloramine (used exclusively at the municipal treatment level in the United States), copper-silver ionization, UV light, and ozonation. Each method has advantages and disadvantages related to ease of implementation, cost, maintenance issues, and short- and long-term effectiveness. These strategies are not completely effective in the long run because maintenance of systemic disinfection agents at levels that would prevent recolonization and biofilm elaboration is difficult and because biofilm is known to protect microbes against systemic disinfection strategies. With this in mind, point use filtration is recommended as an additional barrier to waterborne pathogen exposure (Cervia, Ortolano, & Canonica, 2008).

Legal Liability, Code Violations & Loss of Public Trust

In countries around the world that have their traditional source in English common law, including Australia, New Zealand, most of Canada, the United States, England, Wales, most of India and a host of other countries, the law and the rights of aggrieved parties have evolved through the doctrine of *stare decisis*. That is, legal liability has been confirmed through precedent of past cases otherwise similar in legal issues and facts. In common law jurisdictions, an injured party or parties (also known as plaintiffs) may bring a legal action against a defendant as a result of failure(s) of some sort by the defendant/wrongdoer. Negligence on the part of a professional is referred to as malpractice, and thus there have been many cases filed over the years related to medical malpractice, nursing malpractice, legal malpractice, and so forth.

Hospitals, nursing homes and medical clinics over the years have been found liable for various forms of negligence. Healthcare facilities have a general duty to keep premises safe and free from dangerous conditions. When a facility fails in this duty, a lawsuit can be brought against it.

Four elements are usually needed to prove negligence in common law jurisdictions: duty of care (requiring all organizations and persons to behave in a reasonably prudent manner, as would reasonable organizations and persons under like circumstances); breach of duty (failure of the defendant to follow the prescribed standard of care); causation (where a plaintiff proves through evidence that an injury occurred as a result of the defendant's negligence); and damages (a demonstration of loss by the plaintiff related to things such as personal injury, permanent physical disability, physical and mental pain and suffering, loss of enjoyment of life, and so forth) (Pozgar, 2012).

In common law jurisdictions, just adhering to local building and hygiene codes may not be enough to exonerate a defendant sued by injured parties, particularly when related to the issue of facility water tainted by a bio-pathogen. For example, in Melbourne, Australia, a plaintiff's bar attorney who specializes in deadly *Legionella* bacteria lawsuits, indicated that just adhering to governmental guidelines has not been enough to protect defendants for not taking all steps necessary to ensure clean cooling towers. In rather graphic language, attorney Eugene Arrocca made the following comments about defendant Royal Melbourne Hospital:

Well at the moment there are tests - they're required to do monthly testing for a total bacteria count, but not for *Legionella*. And we would have thought that given that *Legionella* is the prime killer in these sort of cooling tower mishaps, for the sake of an extra \$50 or even \$100 a month, to conduct a test on *Legionella* to ensure that it's not in the system is money which I think pales into insignificance when you compare it to five months of intensive care for (client) Mr Riali. I mean, my estimate of what it costs to keep a patient in intensive care per day is about \$1,500. You multiply that by five months, and they could have enough tests for the next 50 years (Baggio, 2001).

In countries that follow civil codes (and not common law), strict monetary and licensure penalties can exist for failure of healthcare facilities to maintain safe and clean environments. Further, all healthcare organizations eschew the loss of public trust and patient business when it becomes known that water within the health milieu is compromised. In recent years, the Medicare system and other payers in the United States have refused to provide additional payment for treatment of patients that have incurred a nosocomial infection (infection acquired while in the facility), even if the ensuing medical treatments are lengthy and extensive. This is a trend that may well expand to other countries around the world. Clearly, no healthcare facility can afford to gain notoriety as a source of tainted water and human infection.

The 2010 United States Hospitals Water Monitoring Study

A groundbreaking survey of hospitals in the United States in 2010 revealed important gaps in the monitoring and correcting of sporadic episodes of water contamination by waterborne pathogens, including bacterial, viral, fungal and protozoan parasitic infiltrates (Kozicki et al., 2012).

The research problem centered on the determination as to whether the water supply of community hospitals in the United States was being tested by those facilities for waterborne pathogens. In 2010, no reliable measure existed regarding what percentage of community hospitals in the United States were testing for waterborne pathogens, even as these facilities provided acute care service to various kinds of at-risk patients. Approximately 85% of all U.S. hospitals are classified as community hospitals. By definition a community hospital is a nonfederal, short-stay hospital which is usually available to the general public (Shi & Singh, 2012).

A phone survey was conducted in July of 2010 using a structured sample of American Hospital Association (AHA) community hospitals. Hospital facility management was contacted by phone operators from the Central Michigan University Center for Applied Research and Rural Studies (CARRS). The survey for practical purposes was directed to community hospitals that employed facility management in the AHA registry. At the time of the phone survey, this made up of 970 of the 4,897 AHA member facilities. The identity of the hospitals and facility subject matter experts was not made available to the public or to the researchers, in order to protect hospital identity and the persons providing information.

Initial contact with each AHA facility management person was by letter in June 2010. Once the

pilot study was complete, the subject matter expert (SME) at these selected hospitals was contacted by telephone between July 7 to July 29 of 2010 and asked to participate in the survey. When a SME did agree to participate in the survey, this person was interviewed by the CARRS telephone researcher. A structured questionnaire was used to maintain uniformity in the survey process and to eliminate bias and to increase reliability. Confidentiality was maintained by use of a proven system in which the data file with identifying information was kept separately from the data file with interview data. The use of a written questionnaire and trained interviewers increased face validity by making the interview of SMEs systematic. The questions used in the survey had construct validity as they were developed based on literature reviews of waterborne pathogen testing in U.S. hospitals. The conclusions of this study have external validity because the sample in this study is made up of U.S. hospital facility managers.

All 970 AHA hospitals that had a SME were contacted and 393 or 40.52% of the possible SME respondents provided the data for this study. It took, on average, 13 phone calls before the SME was contacted and interviewed by the CARRS surveyor. All hospital SMEs in this study were read the IRB statement before the survey questions were started. Hospitals from all four U.S. regions: West, Midwest, South and North were included in this survey. All participants were informed that the survey was voluntary and that their identity and that of their facility would not be disclosed in the results. All participants agreed to take the survey after the IRB statement was read to them. The responses of these subject matter experts were immediately keyed into a word and data processing computer by the phone interviewer to capture the responses. The collected responses from the national survey were tabulated using SPSS descriptive statistics. The survey provided qualitative and quantitative information. Responses by region can be found in Table 2. The frequency of water testing in U.S. hospital facilities varies with 9.9% conducting daily tests, 8.4% weekly, 1% every other week, 27.5% monthly and 15.8% yearly (see Table 3).

Hospitals from all four regions of the United States were included in this survey (Table 2).

Table 2. Hospital Response by Region – Coded from States

Region	Frequency	Percent
West	69	17.6
Midwest	134	34.1
South	98	24.9
Northeast	91	23.4
Total	393	100.0

n=393 Adapted from “Waterborne Pathogen Risk Assessment at U.S. Hospitals,” by Z. A. Kozicki, 2011, (Doctoral dissertation, Central Michigan University, 2011), p. 143.

Table 3. How Often Does Your Facility Conduct Water Testing?

Testing Schedule	Frequency	Percent
DAILY	39	9.9
WEEKLY	33	8.4
EVERY OTHER WEEK	4	1.0
MONTHLY	108	27.5
YEARLY	62	15.8
as necessary (only if volunteered)	16	4.1
never (volunteered)	97	24.7
don't know/not sure	33	8.4
Refusal	1	0.3
Total	393	100.0

n= 393 Adapted from “Waterborne Pathogen Risk Assessment at U.S. Hospitals,” by Z. A. Kozicki, 2011, (Doctoral dissertation, Central Michigan University, 2011), p. 157.

The testing for specific pathogens in water at the surveyed U.S. hospitals can be found in Table 4.

Table 4: Percentage of U.S. Hospitals Conducting Water Testing for Pathogens

Bacteria	Amoeba & Protozoa	Viruses	Fungi
55.5%	21.6%	18.6%	23.4%

n= 393 U.S. Community Hospitals. Adapted from “Waterborne Pathogens: A Public Health Risk in US Hospitals,” by Z. A. Kozicki et al., 2012, *Journal – American Water Works Association*, 104(1), p. 54.

The further breakdown of the 393 hospitals was as follows: rural (46.1%), urban (52.1%), not-for-profit (87.3%) and for-profit (12.7%). Only 57.3% of the hospitals provided additional treatment to water after it was in the facility, and most facilities (89.1%) relied on municipal water treatment. While only 3.1% of the respondents secured water from ground wells, it was this group that was most likely to provide additional treatment of water once it was in the facility (91.7%). A majority of the hospitals (57.3%) provided additional treatment to water after it was in the facility, but treatment modalities varied. A majority (66.2%) of the facilities indicated that they had a written waterborne pathogen plan and 50.1% had a waterborne infection team in place. A follow-up survey using SurveyMonkey took place from November 1 through December 10, 2010 involving 28 facility managers or 7% of SMEs is summarized in Table 5 Facility Water Treatment Method and Table 6 Facility Water Screening Sites.

Table 5: Facility Water Treatment Method (Follow up survey)

Facility Waterborne Treatment Method	Percentage Utilizing This Method
Chlorine Booster	14.3%
Chlorine Dioxide	14.3%
Copper Silver Ionization	19.2%
Hyper Chlorination	7.1%
Super Heating and Flushing	18.5%
Point of Use Water Filters	51%
Ultraviolet	35.7%
Ozonation	3.7%
Sterile Water	42%

n= 28. With 92 %, using municipal Adapted from “Waterborne Pathogen Risk Assessment at U.S. Hospitals,” by Z. A. Kozicki, 2011, (Doctoral dissertation, Central Michigan University, 2011), p. 165.

Table 6: Facility Water Screening Sites (Follow up survey)

Facility Waterborne Screening Sites	Percentage Screening These Sites
Patient Rooms	48.1%
Surgical Suites	53.6%
Cooling Towers and Evaporate Condensers	74.1%
Dialysis and Dialysate	60.7%
Ice Machine and Ice	39.3%
Hydrotherapy Tanks	35.7%
Miscellaneous Medical Equipment Connected to Main Water System	42%
Nebulizers	25%
Respiratory Humidifiers	28.6%
Respiratory Therapy Solutions	28.6%
Room Humidifiers	3.6%
Vaporizers	7.4%
Mist Tents	10.7%
Lithotripsy Therapy Tanks	14.3%
Eyewash Stations	28.6%
Endoscopes	42.9%
Flower Vases	0%

n = 28. Adapted from “Waterborne Pathogen Risk Assessment at U.S. Hospitals,” by Z. A. Kozicki, 2011, (Doctoral dissertation, Central Michigan University, 2011), p. 165.

All significant findings are by chi square (X^2) at $p < 0.05$; $n = 393$.

- Municipal water is the likely choice of both rural and urban facilities in this U.S. national study.
- Facilities that have municipal water are less likely to test for bacteria, amoeba, protozoa, virus and fungi and have a waterborne infection team than facilities that have ground water.
- Facilities that provide additional disinfection for water used in the surgical department are more likely to have a waterborne pathogen infection team
- If a facility provides additional treatment for ground water it is also more likely to test for bacteria, amoeba, protozoa, virus, fungi, pharmaceuticals and have a waterborne infection team.
- Facilities are more apt to conduct daily, weekly, every other week, monthly, and yearly water testing if they have a written plan to do so.
- Facilities are more apt to conduct daily, weekly, every other week, monthly, and yearly water testing if they have a waterborne pathogen team.

- Facilities in the Midwest and Northeast are more likely to conduct waterborne pathogen testing than facilities in the South or Western region of the United States.
- Facilities that provide training for clinical and/or non-clinical staff regarding waterborne pathogen management are more likely to test for bacteria, amoeba & protozoa, viruses, fungi and pharmaceuticals.
- Facilities that are more likely to train clinical and nonclinical staff regarding waterborne pathogens have a written plan for managing waterborne pathogens.
- Facilities that are more likely to train clinical and non-clinical staff regarding waterborne pathogens have a waterborne infection team.
- Training of clinical and/or non-clinical staff about waterborne pathogen management is more likely to happen in urban versus rural facilities.

It is recognized that human enteric pathogens are known to cause widespread waterborne disease in the United States. The cost is estimated to be \$20 billion a year in lost productivity. Worldwide waterborne disease is estimated to account for nearly 6,000 deaths per day, mostly in children (WHO/UNICEF, 2000). Even though there is an understanding of the microbes in the environment and their association with disease, much progress has yet to be made in actually ending the threat of waterborne pathogens to human health (Reynolds, 2003, October).

It is indeed unfortunate that there is no accurate “national record-keeping” in the United States of how many illnesses are caused by contaminated water. It is even more tragic that this situation is endemic worldwide. Hospital acquired infections (HAIs) are a problem for all hospitals, everywhere, and it is generally unknown how many HAIs are caused by tainted water in drinking water sources, air conditioning units, cooling towers, showers, sinks, baths, water decorations, potted plants and so forth. The resultant cost to hospitals around the world is increased patient co-morbidities and mortalities, and compromised clinical outcomes. See Table 7 for information about common opportunistic pathogens found in United States drinking water.

Table 7: Some Common Opportunistic Pathogens Found in United States Drinking Water

Organism	Prevalence in drinking water	Disease manifestation/infection route	Other comments
<i>Pseudomonas aeruginosa</i>	Up to 24%	Urinary tract, wound and skin infections, burn victims, pneumonia, respiratory tract infections in cystic fibrosis patients	Estimated to account for 10-20% of nosocomial infections – Highly resistant to disinfectants.
<i>Aeromonas hydrophila</i>	Up to 27%	Wound infections, septicemia, and diarrhea	Widely distributed in the environment.
<i>Mycobacterium</i> spp.	Up to 70%	Respiratory, intestinal and generalized infection in HIV patients. Rarely documented pulmonary disease in immunocompetent hosts	2nd most common cause of death in HIV-positive patients
<i>Acinetobacter calcoaceticus</i>	Up to 38%	Bloodstream infections, pneumonia, bacteremia	
<i>Flavobacterium meningosepticum</i>	Traced to water sources	Neonatal meningitis, adult septicemia	
<i>Legionella</i> spp.	Up to 33%	Pontiac fever, Legionnaire’s Disease, respiratory infection	Aerosol route – Isolated in drinking water samples. Frequently colonize in water distribution systems

Source: Reynolds, (2003, July)

RECOMMENDATIONS

In the absence of clear standards around the world, the authors recommend the following as proper protocol for healthcare facilities policy makers to consider for medical standards within their jurisdictions everywhere:

- 1) A regimen of at least weekly internal surveillance of all water usage within all healthcare facilities;
- 2) The antiseptic treatment internally within the healthcare facility of all drinking water systems and surgery and dialysis water;
- 3) The development of a written plan of water surveillance and water quality maintenance in each healthcare facility; and
- 4) The development of a waterborne pathogen team in each hospital and major clinical setting.

Further, it is recommended that the World Health Organization and all major governmental public health and nongovernmental organizations (NGOs) dedicated to international health develop a set of guidelines that would be recommended to all healthcare facilities around the world. The authors believe that the four protocols stated above would serve as a rational framework in which to open the discussion in all healthcare facilities about preventing waterborne nosocomial infections. Whenever possible, healthcare organizations should be leaders in the advancement of regional standards for monitoring aquifer water quality, as underground water reserves often overlap various political and geographical boundaries.

CONCLUSIONS

There are sound moral and business reasons for hospitals and healthcare facilities in all countries to strive to eliminate any and all sources of waterborne pathogens as they arise. Further, it is time for international consensus to be reached on this issue so that the detection of pathogens in healthcare facility water sources are regular events, and the treatment of issues are immediately and effectively handled. The cost savings to healthcare facilities will be tremendous, as will the mitigation of avoidable human misery, illness and death. At minimum, all healthcare facilities must begin to test regularly the water they provide in their facilities and take appropriate action to reduce nosocomial infection.

REFERENCES

- Anaissie, E. J., Penzak, S. R., & Dignani, M. C. (2002). Hospital water supply as a source of nosocomial infections: A plea for action, *Archives of Internal Medicine*, 162(13), 1483-1492.
- Baggio, G. (2001, June 25). Hospital faces legionnaires lawsuit. *AM Archive*. Retrieved March 8, 2013, from <http://www.abc.net.au/am/stories/s317929.htm>
- Cervia, J. S., Ortolano, G. A., & Canonica, F. P. (2008, November). Hospital tap water: A reservoir of risk for health care-associated infection. *Infectious Diseases in Clinical Practice*, 16(6), 349-353
- Donlan, R. M., & Costerton, J. W. (2002, April). Biofilms: Survival mechanisms of clinically relevant microorganisms. *Clinical Microbiology Reviews*, 15(2), 167-193. doi: 10.1128/CMR.15.2.167-193.2002
- Fujimura, S., Oka, T., Tooi, O., Meguro, M., Chiba, M., Kawamura, M.,...Watanabe, A. (2006). Detection of *Legionella pneumophila* serogroup 7 strain from bathwater samples in a Japanese hospital. *Journal of Infection and Chemotherapy*, 12(2), 105-108.
- Haupt, T. E., Heffernan, R. T., Kazmierczak, J. J., Nehls-Lowe, H., Rheineck, B., Powell, C.,...Davis, J. P. (2012). An outbreak of Legionnaires disease associated with a decorative water wall fountain in a hospital. *Infection Control and Hospital Epidemiology*, 33(2), 185-191. Retrieved from <http://www.jstor.org/stable/10.1086/663711>
- Inman, M. (2010, September 30). 80 percent of global water supplies at risk. *National Geographic News*, Retrieved from <http://news.nationalgeographic.com/news/2010/100930-freshwater-river-map-security-risks/>

- Kaufman, R. (2011, May 25). Prozac killing *E. coli* in the Great Lakes, *National Geographic News*. Retrieved from <http://news.nationalgeographic.com/news/2011/05/11052-prozac-drugs-water-great-lakes-erie/>
- Kozicki, Z. A. (2011). Waterborne pathogen risk assessment at U.S. hospitals (Doctoral dissertation, Central Michigan University, 2011).
- Kozicki, Z. A., Cwiek, M. A., Lopes, J. E., Jr., Rodabaugh, G., Tymes, N., Jr., & Baiyasi-Kozicki, S.J.S. (2012, January). Waterborne pathogens: A public health risk in US hospitals. *Journal – American Water Works Association*, 104(1), 52-56.
- Lazăr, V., & Chifiriuc, M. C.(2010). Medical significance and new therapeutical strategies for biofilm associated infections. *Roumanian Archives of Microbiology and Immunology*. 69(3),125-38.
- Lenntech. (2013). Water related diseases: Dimension of the problem. Retrieved March 8, 2013, from <http://www.lenntech.com/library/diseases/diseases/waterborne-diseases.htm>
- McAdam, N. (2012, April 6). Babies in killer bug Belfast hospital washed in contaminated water. *Belfast Telegraph*. Retrieved March 8, 2013 from [www.belfasttelegraph.co.uk/news/local-national/northern-ireland/babies-in-killer-bug-belfast-hospital-washed-in-contaminated-water-16140902.html?r=RSS\[12/13/2012%2011:12:01%20AM](http://www.belfasttelegraph.co.uk/news/local-national/northern-ireland/babies-in-killer-bug-belfast-hospital-washed-in-contaminated-water-16140902.html?r=RSS[12/13/2012%2011:12:01%20AM)
- Nucci, M., Akiti, T., Barreiros, G., Silveira, F., Revankar, S. G., Wickes, B. L.,...Patterson, T. F. (2002). Nosocomial outbreak of *Exophiala jeanselmei* fungemia associated with contamination of hospital water. *Clinical Infectious Diseases*, 34(11), 1475-1480.
- Pozgar, G. D. (2012). *Legal aspects of health care administration* (11th ed.): Sudbury, MA: Jones & Bartlett Learning, LLC.
- Reynolds, K. A. (2003, July). Nosocomial? Waterborne routes of hospital-acquired infections, *Water Conditioning & Purification Magazine International*, 45(7). Retrieved from <http://www.wcponline.com/column.cfm?T=T&ID=2248&AT=T>
- Reynolds, K. A. (2003, October). Detecting waterborne pathogens: A look at past, present and future approaches. *Water Conditioning & Purification Magazine International*, 45(10). Retrieved from <http://wcponline.com/column.cfm?T=T&ID=2384&AT=T>
- Shi, L., & Singh, D. A. (2012). *Delivering health care in America: A systems approach* (5th ed.). Burlington, MA: Jones & Bartlett Learning.
- Trop Skaza, A., Beskovnik, L., Storman, A., Ursic, S., Groboljsek, B., & Kese, D. (2010). Outbreak of Legionnaires' disease in a nursing home, Slovenia, August 2010: Preliminary report. *Euro Surveillance*, 15(39), 19672.
- World Health Organization (WHO). (1997). *Guidelines for drinking water quality* (2nd ed.). *Volume 3: Surveillance and control of community supplies*. WHO, Geneva.
- World Health Organization (WHO). (2007). Waterborne pathogens and their significance in water supplies. Retrieved from http://www.who.int/water_sanitation_health/gdwqrevision/watpathogens.pdf
- World Health Organization/United Nations Children's Fund. (2000). *Global water supply and sanitation assessment 2000 report*:: http://www.who.int/water_sanitation_health/monitoring/jmp2000.pdf
- Ydstie, J. (2011, November 22). Selling water, health care in the developing world. *NPR*. Retrieved March 8, 2013, from <http://www.npr.org/2011/11/22/142184691/selling-water-health-care-in-the-developing-world>

LEADERSHIP, COMMITMENT AND TEAMWORK: A CASE STUDY OF THE BRAZILIAN MILITARY ORGANIZATION

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ABSTRACT

The present study aimed to investigate leadership, organizational commitment, and teamwork in a military organization of the Brazilian Army. This may result in the offer of opportunities for perfecting selection, training programs and human resources preparation to peace missions for the United Nations. Firstly, theories regarding leadership, organizational commitment, and teamwork were revised. Later, face-to-face interviews were carried out from November 1st to 5th, 2012, and information was collected in a specific military organization of the Brazilian Army. Research tool was submitted to a panel of nine judges (n=9) and later applied to a group of 70 participants (n=70). Data was collected over the internet, and content analysis was carried out by means of Sphinx Software. Leadership, Organizational Commitment and teamwork were categorized on the grounds of the dimensions discussed in the theoretical review section of this study. The results show that a quantitative investigation via multivariate analysis involving the studied constructs would be promising, thus being of scientific research interest.

INTRODUCTION

The literature on leadership comprises a wide range of works involving its effects on organizations. However, few of them concern investigations over the relationship between leadership, teamwork and organizational commitment. This study aims to delve into the theoretical foundations of leadership, commitment and teamwork and the complex interrelations amongst these variables, since clarifying them may provide support to improve the organizational environment and work performance. As regards leadership approaches, the following aspects were investigated: situational leadership (Hersey and Blanchard, 1982), transformational transactional model proposed by Bass and Avolio (1990) and Leader-Member Exchange-LMX approaches (Graen & Cashman, 1975; Graen, Cashman, Ginsburgh & Schieman, 1977; Scandura & Graen, 1984). As far as teamwork is concerned, theoretical approaches to substantiate the characterization of working teams and Team-Member Exchange-TMX (1995) were emphasized. The approach to organizational commitment applied the model proposed by Allen and Meyer (1991), specifically when it comes to affective, normative and instrumental categories in order to understand how related it is to the leadership process. A survey was conducted in the Brazilian Army, with the participation of 70 volunteer respondents (n=70) who were serving in a Brazilian military organization, and it aimed to analyze respondents' perception regarding the above-mentioned theoretical contributions.

THEORETICAL FRAMEWORK

Leadership

Studies regarding leadership have put forward many advances elsewhere, which may be proven by the increasing production of quality publications in other countries as opposed to what happens in Brazil. Carrying out theoretical-empirical research in the scope of leadership processes is perhaps an excellent opportunity for producing subsidies to educators, researchers, administrators and professionals who need a well-founded theoretical framework to this topic, as well as the scientific language per se. Fiedler (apud Hersey and Blanchard, 1986, p.118) also carried out investigations over this theme and proposed the

leadership contingency model, wherein consideration structures would swap with initiation structures. Upon comparing these two approaches, the former may be regarded as more individual-centered and fosterer of social relations, whereas the latter seems to take into consideration relationship factors and empowering situations, thus being more task-oriented. Although these references put forward important contributions to understanding leadership, it is also worth exploiting other theoretical approaches in order to have a broader view and theoretical consistency on this subject. The knowledge of approaches based on behavioral, contingency, transactional and transformational traces may contribute to the discussion of the general research problem. According to Tannenbaum *et al.* (1961, p.44), and in an analysis of leadership literature on situation, those terms have been used in several ways to denote an activity, or a determined series of activities to which the group is committed; group characteristics, including interpersonal relationships; goals or group needs; and the cultural context. Tannenbaum *et al.* (1961) also define leadership as something that comprises the aspects of objective contexts that would consciously or unconsciously impact attitude or behavior over individuals as regards influence relations. The author recognizes that leader's and follower's situation may differ in many aspects. The situational approach gathered expressive notoriety by the time the trace-based and the behavioral leadership approaches proved to be insufficient to provide a theoretical framework that would be suitable for explaining the leadership phenomenon. Tannenbaum *et al.* (*ibidem*1, p.42) suggest that any Global Leadership theory may take three aspects into consideration: 1) the leader and their psychological attributes; 2) the follower, with their problems, attitudes and needs; and 3) the group situation, wherein followers and leaders relate to each other. According to the definition proposed by Tannenbaum *et al.* (*op.cit.* p.42), leadership would be defined as the interpersonal influence applied in a situation, by means of the communication processes in order that a goal or specified goals are met. It is possible to observe that a specific behavioral style should be adapted to a so-called target situation in order to become effective. The adoption of a task-oriented style, together with a specific orientation towards the individual, could be effective in a given situation, but not in another. This observation is endorsed by a study carried out in Nigeria (apud Hersey & Blanchard, 1986, p.106), which observed that task-oriented supervisors tended to reach high productivity by means of strict supervision. One possible conclusion is that there is no telling whether leaders' behavioral styles will be effective, for it depends on different elements involved in a situation. For Tannenbaum (1961), the situation may be regarded as an activity or a series of activities to which a determined group is committed; also as the characteristics of the group, including interpersonal relations, goals and needs, as well as cultural context. Hersey and Blanchard (1986, p.165) point out that the style and expectations of the leaders, followers, supervisors, co-workers and the organization are environmental variables capable of influencing the appropriate choice of leadership style, let alone the demands the position entails. By turn, Schein (1982) proposes a diagnostic referential scheme in order to analyze leadership, by taking into consideration the characteristics of leaded individuals and real work situation. Hence, the diagnostic of the leadership situation to be carried out by the leader would involve the leader's perceptions, the leaded individuals' characteristics and the task/situation. Based on this diagnostic, the leader would be able to exhibit behaviors that may or may not obtain the expected results.

Each one of the contingency theories to be discussed in the present paper will highlight a situational aspect deemed relevant according to each approach: 1) Fiedler's theory emphasizes the leader figure; 2) House's Path-Goal Theory presents the way subordinates may attain high levels of performance and rewards; 3) Vroom-Yetton's theory takes into consideration the limits of subordinates' participation in the decision process; 4) Hersey and Blanchard's model highlights the importance of subordinates' level of maturity; and 5) Argyris's model emphasizes leader's behavior. Fiedler (1995) developed a theory according to which the leader's effectiveness would depend upon two pillar aspects: the leader's personality and the level at which the situations are under leader's control. Such situational control would include three dimensions: leader-subordinate relationship quality, formal power position, and degree of task structure. Fiedler (1993) carried out many other studies regarding leadership and is considered to be one of the most prominent researchers in this field. The methodology used by Fiedler (1993, p.4) involved the application of a simple scale that would indicate the level at which an individual describes their last preferable co-worker (CTMP, or LPC) as favorable or unfavorable, i.e., the employee an individual would have most difficulty to work with. After analyzing the research results, Fiedler concluded that someone who accounts favorably for the last preferred co-worker (i.e., granting a high CTMP or LPC mark) would tend to be more human-relations oriented, whereas the case otherwise (i.e., granting a low CTMP or LPC mark) would tend to be regarded as more task-oriented and least concerned with human relation aspects at work. The results in Fiedler's studies (1993) lean towards the contingency hypothesis, according to which task oriented leaders are more effective in situations involving highly favorable or unfavorable teamwork tasks (task-oriented leadership), whereas human-relations-oriented leaders are more effective in average favorability levels (relationship-oriented leadership). Martin G. Evans and Robert J. House (apud Stoner, p.354) developed the Path-Goal model based on an expectation model, in which human's motivation would depend upon the

expectation of reward or its attractiveness. House and associates identified two variables that helped determine the most effective leadership style: subordinates' personal characteristics, and environmental pressures and demands at work place. According to Stoner (1999, p.354), the Path-Goal Theory consists in a leadership theory that focuses on the role of the leader at clarifying how subordinates may achieve high levels of performance and associated rewards. The leader may excel at clarifying the objectives and offering conditions for subordinates to attain them motivated by increasing rewards. This theory focuses on the leader's possibility to interfere in their followers' motivation by means of the availability, the level of reward attractiveness, and the empowerment of expectations, in such a way that it evidences that an effort may result in rewardable performance. The effect of leadership in motivation depends upon environmental characteristics, task and subordinates. The theory at stake relates explicitly to subordinate's characteristics. In this respect, two aspects are worth highlighting: the one related to subordinates' "locus of control", and the perception of the very capacity to accomplish a task.

Accordingly, people who regard themselves as effective agents of their own destiny would have an internal locus of control, whereas those who ascribe the causes of their behavior to external factors would have an external locus of control. Research on leadership and degrees of satisfaction with people from different loci of control suggest that a participative-people-focused leadership tend to appeal more to people with internal locus of control, whereas a counseling-task-focused leadership tends to appeal to people with external locus of control.

Observing the characteristics of tasks and subordinates to better define ongoing situation and leadership developments is significant for performing an effective leadership. Therefore, taking into consideration the level of orientation to be given may depend both upon the degree of task structuring, the level of self-reliance and the locus of control that characterize subordinates.

Concerning the environmental factors that would affect subordinates' preferred leadership styles, the following stands out: 1) subordinates' task nature; 2) the organization formal authority; 3) subordinates' work groups. Vroom-Yetton's model raises an important issue regarding whether the head of an organization assumes a guiding or a participative position with the subordinate before a problem-solving situation. Vroom & Yetton's model (apud Stoner, 355) was developed to help administrators decide how far subordinates should be involved in solutions to specific problems. Hence, a set of norms has been identified in order to guide leaders to adapt their leading style according to circumstance demands. These norms were investigated on the grounds of the effects of participation over satisfaction and performance, as well as of its practical application before the need to decide over the limits of subordinates' participation in a decision making process. In this respect, Vroom & Yetton would help managers decide the extent to which subordinates would be able to take part. Vroom & Yetton's leadership and decision models could be organized within three categories: autocratic, consultative and group. The choice between three alternative levels of participation would be oriented by three results of decision, based on: 1) quality or rationality; 2) acceptance or subordinate commitment to implement the decision; 3) required time for taking a decision. Hersey and Blanchard (1986) proposed a contingency approach wherein the most effective leadership style ranges according subordinate "maturity". This maturity is understood as accomplishment desire, willingness to accept responsibilities, and the capacity and experience related to the task. Therefore, followers' goals and knowledge are seen as important variables when it comes to defining the most effective leadership style. In sum, Hershey and Blanchard believe that the leader ought to know how to adapt the leading style to subordinates' maturity. Hence, four developmental stages with four corresponding leadership styles would be proposed. On the initial stage, when subordinates are inexperienced in the tasks required by the organization, the most appropriate style would be the guiding one, for subordinates would be oriented towards their tasks and would become familiar with the organization rules and procedures. On the second stage of subordinates' development, the leader would adopt a training style, characterized by being task oriented, but with a relative increase in trust and support towards subordinates. On the third stage of subordinates' maturity development, the participation style would be more effective. On this stage, task orientation would decrease, but the support behavior would remain so that subordinates start to assume greater responsibilities. On the fourth stage of development, when subordinates become more self-confident, self-directed and experienced, the leader may reduce task support and orientation, and, thus, adopt a delegation style. In order to perform an effective leadership, the leader must be able to diagnose subordinates' levels of development and be flexible to adopt an appropriate style according to the level of subordinates' maturity. In contrast, Argyris is concerned about the good psychological functioning within organizations, and suggested that several benefits in the work environment could be attained if directors and subordinates behaved more psychologically mature. According to Argyris (apud Schein, 1982), directors and leaders acts are guided by two different theories: 1) a theory characterized by objectives, values and hypotheses that a person claims to guide their behavior; and 2) a theory in use, characterized by implicit

hypotheses that most probably guide individual's behavior. Even though the adopted theories varied considerably, from autocratic approaches to more participative ones, the theories in use could reflect what Argyris called Moldel I (apud Schein, 1982, p.100), which is grounded on four main hypotheses or, pursuant to Argyris, on four "guiding variables": 1) the hypothesis that an individual should meet their own goals as they see it; 2) the hypothesis that an individual should win instead of losing; 3) the hypothesis that an individual should reduce the emergence of negative feelings in relationships to the minimum; and 4) the hypothesis that an individual should be rational and reduce any emotionalism to the minimum. Argyris (apud Schein, 1982, p.100) affirms that these guiding variables lead to a behavior that aims at the control of one person over the others, which rises self-security to a maximum and produces minimum confrontation regarding any subject coated with emotional load. Hence, some factors came to be regarded in terms of the situation analyses in which leadership could be detected. These factors, investigated by Stoner (1999), and called environmental variables by Hersey & Blanchard (1986), would be: 1) the personality, leader's previous experiences and expectations; 2) superior's expectation and behavior; 3) task demands; 4) peers' expectations and behaviors; 5) subordinates' expectations and behavior; and 6) organizational culture and politics. The situation will be more thoroughly discussed in the leadership contingency approach, regarded as one of the main theoretical perspective of leadership. Bass and Avolio's approach (1993) puts forward two leadership behavioral types: transactional and transformational. Big enterprises, such as IBM, AT&T and GM, have been facing the need to count on transformational leaders when endeavoring to implement short-term changing programs. Burns has been influenced by Bass (1985, apud Smith & Peterson, 1994, p.130), who developed a measuring survey from the so-called transformational and transforming leadership. The transactional leadership would be assessed by two scales called contingency reward and management by exception; whereas the transformational leadership would be assessed by four scales known as charisma (reference power), inspirational motivation (communication, goals and path), intellectual stimulation and individualized consideration. As regards transformational leadership, leaders are able to change target key collaborators' work orientations, in order to foster commitment to the organization.

One of the theorists of this style of leadership is Warren Bennis. The leaders he studied have four competences: management of attention, meaning, trust and self. By managing attention, the leader knows what they want and where they aim to arrive at; they have clear goals and objectives. Meaning management refers to communication and idea transmission, producing a meaning in the environment to any available information. Managing trust takes place via constancy. Bennis (1996, p.82) shows a recent study revealing that people prefer following individuals who they can trust, even bearing different viewpoints, to people who they agree with, but change opinion at any time. By managing the self, the leader knows oneself and attempts to develop their virtues, let alone accepting risks.

Bennis (1997) affirms that the bureaucratic organizational model was ideal for the industrial era, and that the new leadership paradigm is comprised of alignment, which consists in creating shared goals at human resources level; creation, in the sense of being adaptive and creative, experimenting solutions and learning with own mistakes; empowerment, which is based on trust and credibility to individuals, systemic communication, and collective engagement, since collaborators should feel the importance of their participation and contribution to something meaningful that involves commitment.

In particular, military leadership is studied by authors like Janowitz (1967), Sepúlveda (1996) and Souza (1996), who attempted to explore more thoroughly the organizational culture, the specificities of military leadership, and the leader's profile. William (1983) pinpoints four influential aspects associated with military leadership: organization authority, moral authority, technical capacity, and charisma. Although the contributions put forward by these authors are highly pertinent, especially Bennis's (1997), lifting foreign leadership models to apply in our culture is not enough. Questions should be raised over the leadership paradigm to be implemented in the Military Forces to date, in particular in Brazil, taking into account members' cultures, characteristics, objectives and beliefs, let alone the trends in the world today. With regard to the approaches, Situational Leadership by Hersey & Blanchard (1969), Bass transformational approach (1985) and approaches of Leader-Member Exchange LMX (Graen & Cashman, 1975; Graen, Cashman, Ginsburgh, & Schiemann, 1977; Scandura & Graen, 1984) were investigated. Rejecting the linear approach to leadership ("one best style"), Hersey & Blanchard present their own "tri-dimensional leadership effectiveness model" which adds an effectiveness dimension that shows how leadership style is related to the environment and situation to achieve maximum effectiveness. (S. Novit, 1971) The Situational Leadership approach discusses the dimensions of Situational Leadership (task behavior and relationship behavior) in terms of observed behavior. According to these researches, it would be appropriate for leaders to adopt differing styles of leadership depending upon the specific problem or circumstance. Thus, leaders should analyze subordinates' emotional maturity and chose the most adequate

style of leadership considering the circumstances, sometimes providing socio-emotional support or delegating when necessary. (Hersey & Blanchard, 1982, Hersey and Blanchard, 1993). Situational leadership is a contingency theory. It focuses on the followers and hypothesizes that successful leadership is achieved when leaders select the right leadership style and consider the followers' readiness. Readiness is defined by Hersey & Blanchard (2000) as the extent to which people have the ability and willingness to accomplish a specific task. Situational leadership uses two dimensions identified as task and relationship behaviors, but takes a step further by considering each one as either high or low, and combining them into four specific leader behaviors: telling, selling, participating, and delegating. The final component in Hersey and Blanchard's theory is defining four stages of follower readiness: R1 (unable and unwilling/insecure); R2 (unable and willing); R3 (able and unwilling/apprehensive) e R4 (unable and willing). (Hersey & Blanchard, 2000)

Newman faces emotional labor as the component of dynamic relationships between two people (worker and citizen, or worker and worker) and states that Alice Rivlin outlined emotional labor as one of requirements of successful leadership in a 2003 conference of the American Society for Public Administration. The situational approach to leadership (Hersey and Blanchard, 1969) reflects these skills. This leadership model requires leaders to adapt and fit their styles into subordinates' competence and commitment (Newman, Guy, & Mastracci, 2009).

The robustness and pragmatic utility of Situational Leadership proposed by Hersey & Blanchard was criticized by Graef (1993) because of its challenges, logical and internal inconsistencies, conceptual ambiguity, incompleteness, and confusion associated with multiple versions of the model.

Despite these criticisms, Yukl (1989) makes reference to the value of Hersey and Blanchard's theory in the sense of treating individual subordinates differently as the situation changes and of being aware of opportunities to build subordinate confidence and skills. According to Castro & Benatuil (2007), the transformational leadership presented by Bass (1985) describes the effects that the leader produces over their followers. Leaders with transformational characteristics cause changes in their followers, being aware of the importance and value that outline the results obtained after performing the assigned tasks. Leaders encourage followers to transcend their personal interests under the objectives of the organization. When transformational leadership occurs, it would be possible to build an environment of trust and respect amongst the members of the group, who become motivated to achieve more than what was originally expected. This is why it is usually thought to be more comprehensive and effective than the transactional type. However, leaders can use both types of leadership according to different situations. CELID Questionnaire (Leadership Styles Questionnaire-Castro Solano, Nader & Casullo, 2004) is a 34-item questionnaire that synthesizes the theory of leadership Transformational / Transactional Bass (1985) and requires the respondents to read the behaviors and attitudes listed in it. The hypothesis to be verified in the study developed by Castro & Benatuil, 2007 suggests that young people with transformational leadership profiles, combined with transactional aspects are those who have a high academic and military performance. The study counted on 412 participants (n=412) cadets undertaking graduation in a military institution that belongs to the Argentine armed forces.

The dimensions evaluated in the instrument are Transformational Leadership, Transactional Leadership and Laissez Faire. The Transformational Leadership has four sub domains: 1) charisma or idealized influence, being the respect for the leader who wants to be imitated and instills high levels of expectation in their followers; 2) Inspiration, being the degree to which the leader energizes fans providing a future vision, objectives and purpose; 3) intellectual stimulation, being the leader's actions related to intellectual stimulation for fans to solve problems creatively to new challenges and obstacles; 4) individualized consideration, being the support that is provided to the follower, paying attention to their personal developmental needs.

The Transactional Leadership has two sub domains: 1) contingency reward is an interaction between leader and follower guided reciprocally. The leader identifies followers' needs and makes a compromise between group needs and individual, by rewarding or sanctioning in terms of objective fulfillment; 2) Management by exception: the leader intervenes only when they have to make corrections or changes in followers' behavior. In general, interventions that are negative and critical to the objectives are not diverted from their course.

The Laissez Faire dimension represents the absence of any kind of transaction. The leader avoids making decisions, is not responsible and does not use their authority. It is considered to be the most ineffective leadership. Three distinct groups could be verified in the results found by Castro & Benatuil

(2007): 1) the profiles of more complete spectrum are related mostly to high academic, high practical intelligence and high abstract reasoning; 2) the predominantly transactional leadership profiles are mostly related to low academic performance, average military performance, low practical intelligence and lower abstract reasoning; 3) The predominantly transformational leadership styles have average academic and high military performance. Future studies should evaluate the relationship between leadership styles and successful performance in the real-life situation of professional officers. Solano (2009) intended to test two hypothesis in civil and military contexts about the personal and collectivist influence on the style of transformational leadership. The first hypothesis is that the transformational organizational culture, personal and organizational values, which can be seen as collectivist, affects the transformational leadership style. The second hypothesis is that the transactional organizational culture, personal and organizational values that can be characterized as individualistic affects the transactional leadership style. The results of the work oriented by Solano (2009) showed that transformational civic leaders are influenced by culture, while transformational military leaders are influenced by personal and organizational values. Finally, transactional civilian leaders report to be influenced by the organizational culture while their co-military colleagues report to be influenced by organizational values.

It is important to mention the notion of values because they can be related to different styles of leadership, effectiveness and value system. In the field of Leadership, it is possible to consider the importance of values in the context of the studies developed by Burns (1978), who stated that when you refer to leadership you also refer to values. Solano (2009) has used the above-mentioned CELID Questionnaire (Leadership Styles Questionnaire-Castro Solano, Nader & Casullo, 2004), but has also applied the Portrait Values Questionnaire (Schwartz, 1987, 1992, 1994, 2000, 2001; Castro Solano & Nader, 2006) and Organizational Description Questionnaire (ODQ) (Bass & Avolio, 1992; Nader, Lupano Perugini & Castro Solano, 2006). The Portrait Values Questionnaire (Schwartz, 1987, 1992, 1994, 2000, 2001; Castro Solano & Nader, 2006) is a scale to measure human values consisting of 40 phrases that describe certain attitudes or ways of interacting with different people by means of a wide range of topics (money, pleasure, traditions, etc.), and it can be evaluated in two different dimensions. The first one contrasts the importance of personal interests to achieve collective goals (Self-Transcendence) to behaviors against those who seek to prioritize their own interests (self-promotion). The second dimension includes behaviors that focus on safety and order (Conservation) against others which value the independence of actions and thoughts (Openness to change). Collectivist interests (the values that prevail in a society have to do with serving the interests of the entire community) can be defined as individualistic (aspects related to personal development and success) or mixed.

Organizational Description Questionnaire (ODQ) (Bass & Avolio, 1992; Nader, Lupano Perugini & Castro Solano, 2006) is designed to evaluate the type of organizational culture, modeled on Bass and Riggio (2006) and consisting of 28 items (n=28) that are answered true or false. The leadership approach on the Leader-Member Exchange consider *role making* (Graen, 1976) to be the dynamic of process that create social structures (Weick, 1969) amongst persons in hierarchical organizations. In the research developed by Scandura & Graen (1984), *role making* involves leader-member exchanges that have been observed as a consistent pattern characterized by leader-member transactions. Depending on the exchange for positional resources from a leader, the member commits oneself to higher degrees of involvement in the function of the unit. The source of influence can involve highly valued outcomes for both superior and member. The superior can offer outcomes of increased job attitude, influence decision making, open communications, and support member's actions, confidence and consideration (Scandura & Graen, 1984).

Scandura & Graen (1984) studied LMX status in dyads on the effectiveness of a dyadic leadership intervention in a study that designed the leadership training which enables and encourages supervisors to improve the dyadic exchange relations with their members through the use of a normative and behavioral model of dyadic exchange.

Three hypotheses were considered:

“Hypothesis 1. Members having initially low-quality LMX will show more positive effects on overall job satisfaction due to the leadership intervention than their initially higher quality cohorts.

Hypothesis 2. Members having initially low-quality LMX will show more positive effects on supervision satisfaction due to the leadership intervention than their initially higher quality cohorts.

Hypothesis 3. Members having initially low-quality LMX will experience more positive effects on productivity due to the leadership intervention than their initially higher quality cohorts.” Scandura & Graen (1984, p.429)

As a result, the effects of leadership intervention were perceptive and indicated that employees having initial poor-quality exchanges were mostly affected by the intervention, increasing productivity and

satisfaction in response to the improved LMX. Scandura, T.A. & Schriesheim, (1994) developed a scale which has items for leaders and subordinates in order to evaluate Leader-Member Exchange and this scale was translated into Portuguese and applied in Brazilian military organizations.

Cogliser, Schriesheim, Scandura, & Gardner (2009) used a sample of 285 matched pairs of employees (n=285) and supervisors, explored the extent to which congruence in leader and follower ratings of LMX quality was related to follower job performance and work attitudes. The researchers observed that balanced/low (high) LMX relationships were associated with relatively low (high) levels of follower job performance, organizational commitment, and job satisfaction, while the incongruent combinations generally yielded intermediate levels of follower outcomes.

The organizational culture is defined as the values and beliefs shared by members of a particular organization and can be identified two types of organizational culture: transactional and transformational. The relations that prevail in transactional organizations are usually contractual, based on bureaucratic structures and communication systems where is predictable verify that the interests of the organization are more important than the interests of the employees. In transactional organizations the commitment is usually short term; work motivation is driven by personal interests; cooperation depends upon the negotiation and the employees work alone in order to attend regulations and rules. The Transformational Culture in organizations generally present structures that are more flexible, informal and dynamic, encouraging teamwork and personal growth, and favoring long-term goals and the commitment of the members. Leaders and followers generally share mutual interests and visions of the organization (Bass and Avolio, 1992, apud Solano, 2009).

Solano (2009) concludes that future research should firstly delve into culture at all levels for the purpose of generating more knowledge on this variable and measurement tools. The research instrument that was employed in the present study may detect types of values, as well as intellectual, emotional and behavioral skills that can be associated with the dimensions studied by Solano Castro & Benatuil (2007) and Solano (2009) in the specific context of peacekeeping forces. It may also be useful for workout programs in leadership skills and allow for enhancing efficacy in military contexts. Oliveira, Sant'Anna & Vaz (2010) have carried out a study in the states of Minas Gerais and Rio de Janeiro (Brazil), whose main goal was to investigate themes, issues and challenges that emerge from key position holders in the public sector of both Minas Gerais and Rio de Janeiro governments. The research employed NVivo 8 software to analyze the qualitative data collected therein, and concluded that it was possible to group the main issues and identifiable challenges according to the relations between public administration and new leadership. The study also allowed for identifying a list of competency attributes required from the manager and leader of the public sector.

Organizational Commitment

The work carried out by Mowday, Porter and Steers (1979) sought to develop and validate a commitment scale that could be used as a tool to measure worker's commitment in organizations. The tool developed by Porter and associates, known as *Organization Commitment Questionnaire (OCQ)* relied on a study involving 2563 employees (n=2563) within nine different organizations (n=9), whose results were regarded as satisfactory in terms of tool reliability and internal consistency. The levels of predictive validity, convergent validity and discriminant validity were deemed acceptable.

In this study, Attitudinal Commitment would represent a state in which the individual would identify oneself with a given organization and its objectives, thus evidencing ones' intention to remain connected to the organization so as to facilitate attaining one's goals. For the purposes to which the tool was developed, commitment was defined as the identifying forces of an individual with a determined organization, which could be characterized at least by three factors: 1) a strong belief in accepting the organization objectives and values; 2) an inclination to exert considerable effort in the name of the organization; and 3) a strong desire to remain in the organization as a member (Mowday, Porter e Steers, 1979, p. 226).

Meyer, Irvin & Allen (1998) tested the hypothesis that the influence of precocious experiences at work to organizational commitment would be moderated by the value assigned to these employee experiences. The values assigned to work were measured in two groups of university graduates before entering the organization, wherein work experience measures were taken into consideration as well as three

compromising forms (affective, continuity and normative, according to Allen and Meyer, 1990), let alone other types of measuring after entering the organization. Regression analysis showed that personal values and experiences interact in the affective commitment prediction and in the normative commitment, but the nature of interaction is diverse for different combination of values / work experience. The research made advances regarding the applied methods, inasmuch as it resorted to a set of alternative procedures that enabled a clearer assessment of joint influences of work values (person) and work experiences over commitment. The results support the hypothesis that there was greater affective commitment amongst those who had positive initial work experiences, and also evidence the effects of interaction between value versus experience. Values and work experiences interact by influencing employees' commitment to the organization.

Bastos (2004) highlights that several studies were developed in order to clarify the reasons for the bonds the employee creates to the organization they work, called Organizational Commitment. The research carried out by Mascon, Bastos and Souza (2012) investigated the standpoint that managers bear the characteristics of a worker who is committed to the organization, and explored the relevance of treating the affective and instrumental dimensions as integrating the same construct, as proposed by Meyer and Allen (1991). On the ground of the organizational commitment theoretical approach, and supported by the cognitive schema concept, the authors characterized the schematic elements that comprise the concept of committed worker from a group of managers, besides exploring the weight of the affective and instrumental elements that integrate this schema.

Research results indicated that the commitment concept is related to its affective basis, the commitment instrumental basis may be regarded as the commitment antithesis, and suggested that extra effort and additional contribution could be regarded as relevant characteristics so that a worker could be deemed committed within the universe of the interviewed managers. The research adopted a qualitative analysis, by means of data content analysis and cognitive mapping to display the results. The authors recognize as research gaps the studies that investigate the commitment concept in the light of cognitive structures, and also point out to the need of widening knowledge over the theme via qualitative studies from the standpoint of Brazilian managers (Mascon et al, 2012).

Teamwork

When it comes to teamwork, theoretical approaches that support the characterization of work groups, as well as the Team-Member Exchange – TMX (Seers, 1989), were highlighted. The construct of team-member exchange quality (TMX) was proposed as a way to assess the reciprocity between a member and the peer group. It should measure the member's perception of their willingness to assist other members, share ideas and feedback and, by turn, define how readily information, assistance and recognition are received from other members. The quality of the team-member exchange relationship indicates the effectiveness of the member's work relationship to the peer group. Team-member exchange would also be related to the leader-member exchange (LMX) construct developed by Graen and his associates (Graen & Cashman, 1975; Graen, Cashman, Ginsburgh, & Schiemann, 1977). The two constructs are similar in that they may be assessed by asking the occupant of a focal role to describe the reciprocal quality of a role exchange relationship (Seers, 1989)

Scandura, T.A. & Schriesheim (1994) developed a scale which has items for employees in order to evaluate Team-Member Exchange and this scale was translated into Portuguese and applied in Brazilian military unit. Zaccaro, Rittman, & Marks (2001) focus on leader-team dynamics of "functional leadership" which asserts that the leader's main job is to do, or get done, whatever functions are not being handled appropriately in terms of group needs. The relationships between members of a team involve reciprocal influence, whereby both leadership and team processes influence each other. The functional leadership approach in terms of 4 superordinate and 13 subordinate leadership dimensions and relate these terms to team effectiveness and a range of team processes. The leader dimensions are: information search and structuring, information use in problem solving, managing personnel resources and managing material resources. The subordinate dimensions are: 1) Acquiring information; 2) Organizing and evaluating information; 3) Feedback and control; 4) Identifying needs and requirements; 5) Planning and coordinating; 6) Communicating information; 7) Obtaining and allocating personnel resources; 8) Developing personnel resources; 9) Motivating personnel resources; 10) Utilizing and monitoring personnel resources; 11) Obtaining and allocating material resources; 12) Maintaining material resources and 13) Utilizing and monitoring material resources.

Ford & Seers (2006) perceived an increasing interest in within-group and adopted a model of study that suggests that within-group agreement on environment is predicted by the quality of exchange relationships, specifically team-member exchange (TMX), leader-member exchange (LMX), social interaction and work interdependence. Results suggest that average high quality LMX and TMX relationships are both predictive of within-group agreement on some measures of environment. The results also support the notion that differentiation in TMX relationships within a team is deleterious to within-group agreement on environment.

Tse, Dasborough, & Ashkanasy (2008) sought to advance research on interpersonal exchange relationships between supervisors, subordinates, and coworkers at work by integrating social exchange, workplace friendship, and climate research to develop a multi-level model. The researchers tested the model using hierarchical linear modeling (HLM) with data obtained from a sample of 215 manager-employee dyads working in 36 teams. At the individual level, leader-member exchange (LMX) was found to be related to workplace friendship. Workplace friendship was positively related to team-member exchange (TMX) and mediated the LMX-TMX relationship. At the team level, HLM results indicated that the relationship between LMX and workplace friendship was moderated by affective climate. These findings suggest that high-quality LMX relationships are associated with enhanced workplace friendship between employees, especially when the affective environment is strong.

METHODOLOGY

The present study consists in investigating the constructs of Leadership Organizational Commitment and Teamwork, and it aims to orient future studies involving eventual existing relations amongst different work group members in organizations. Therefore, this is an exploratory study which aims to discuss the theme inserted in the context of military organizations.

A Company of Marines employed by the Brazilian Army, heretofore named "Alpha", was involved in data collection. Both the commandment of the military organization and all participants freely agreed to take part. Sample choice took into consideration that the military organization has been employed over two years in support operations to homeless after Rio de Janeiro Região Serrana on January 12th, 2011, as well as Pacification Operations at Complexo do Alemão, a favela located in Rio de Janeiro in 2011 and 2012. In all, 143 invitations (n=143) to take part in the research were sent to militaries of the chosen organization, characterizing the volunteering nature of their participation. 75 male participants (n=75) agreed to take part, resulting in an answer rate of 52,44%. The reason why 100% participants were male is explained by the fact that no woman was selected to engage in operational combat in the studied subunit.

The questionnaire was submitted to a panel of nine judges (n=9), who assessed how participant-friendly was the research tool. The surveys were made available to respondents over the internet. Sphinx software was employed in order to identify military's beliefs regarding Leadership, Team Work, Commitment, Human Relations and tasks that contribute to effectiveness in job.

The applied measures were obtained via data collection found in the research tool, which guided the answers to the following open questions:

1. What does the position of team leader entail?
2. In your current activity, what does teamwork entail?
3. In your opinion, what is a person committed to ones' own work team like?
4. In your current activity, what tasks would you consider most important to your team success?
5. What do you regard as important to interpersonal relationship in your work team?

A content analysis was carried out in order to investigate leadership constructs, teamwork, and organizational commitment, the results of which are displayed on Table 1. Table 1 displays the results of content analysis with respect to leadership construct analysis in terms of the dimensions of Leader-Member Exchange-LMX model (Scandura & Graen, 1984).

Liderança_LMX_AC			
Mutual Trust	28	28,9%	 28,9%
Respect	28	28,9%	 28,9%
Obligation	41	42,3%	 42,3%
Total	97	100,0%	

Table 1. Leader-Member Exchange-LMX (Scandura & Graen, 1984).

The results disclosed on Table 1 provide evidence that all dimensions discussed in the scientific literature were contemplated, which refers to the Leader-Member Exchange-LMX model (Scandura & Graen, 1984). Table 2 displays the results of content analysis related to Organizational Commitment.

Comprometimento			
Affective attachment	59	72,8%	 72,8%
Normative Commitment	22	27,2%	 27,2%
Continuance Commitment	0	0,0%	0,0%
Total	81	100,0%	

Table 2. Commitment (Allen & Meyer, 1990)

The results disclosed on Table 2 provide support to the proposition that normative and affective dimensions were contemplated; however, no answer related to continuance dimension was ascertained. Table 3 displays the results of content analysis related to the analysis of Teamwork construct dimensions within Team-Member Exchange approach investigated by Seers (1989), Scandura, T.A. & Schriesheim (1994), and Seers, Petty, & Cashman (1995). The results disclosed on Table 3 provide support to the proposition that there is a strong appreciation regarding member's contribution of ideas, assistance to other members and recognition to other members, and a low concern towards feedback and member's receipt of information.

RESULTS

The results show that Obligation was regarded as the most relevant dimension to quality change of a leader-member in work teams. The organizational commitment was analyzed in terms of affective, continuance and normative components. No answers that contemplate continuance dimension were ascertained, which may denote a strong intention to be acknowledged as part of the selected group. Concerning teamwork, the most appreciated dimensions were member's contribution of ideas, assistance and recognition to other members, whereas the least appreciated dimensions concerned feedback and member's receipt of information. The results of this exploratory study constitute the basis of a qualitative study that will be complemented by a further quantitative analysis in a second moment. In such, the results obtained by applying the leadership scales Leader-Member Exchange-LMX (Scandura & Graen, 1984), Commitment scales (Allen & Meyer, 1990) and Team-Member Exchange (Seers, Petty & Cashman, 1995) will be analyzed and discussed. The present study will be replicated with the same participants in June, 2013. The objective is to identify possible changes in the shared vision of military members regarding the investigated constructs. The present study should be replicated with other military members of Brazilian military units using the Sphinx software, in order to enhance the comprehension about the investigated constructs.

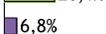
Trabalho_Equipe_AC_2			
member's contribution of ideas	29	33,0%	 33,0%
feedback	4	4,5%	 4,5%
assistance to other members	23	26,1%	 26,1%
member's receipt of information	6	6,8%	 6,8%
recognition to the other members	26	29,5%	 29,5%
Total	88	100,0%	

Table 3. Team-Member Exchange (Seers, Petty, & Cashman, 1995)

REFERENCES

- Abreu, M. C., & Masetto, M. T. (1990). *O Professor Universitário em Aula*. São Paulo: MG Editores Association.
- Allen, N.J., Meyer, J.P. (1990). The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization. *Journal of Occupational Psychology*, 63 (s/n): 1-18.
- Bass, B. (1985). *Leadership and Performance Beyond Expectations*. New York: Free Press.
- Bass, B. (1990). *Handbook of Leadership: A survey of Theory and Research*. New York: Free Press.
- Bass, B. (1998). *Transformational Leadership: Industry, Military and Educational Impact*. Hillsdale: L Erlbaum.
- Bass, B., & Avolio, B (Ed.). (1994). *Improving Organizational Effectiveness Through Transformational Leadership*. Thousand Oaks, CA: Sage.
- Bass, B. M. & Avolio, B. J. (1992). *Organizational Description Questionnaire*. Redwood City: Mind Garden.
- Bass, B.M., & Riggio, R.E. (2006). *Transformational Leadership*. Mahwah, NJ: Lawrence Erlbaum Associates
- Bastos, A.V.B. (2004). Cognição nas organizações de trabalho. In: Zanelli, J.C., Borges-Andrade, J.E. (Orgs.) *Psicologia, organizações e trabalho e no Brasil*. Porto Alegre: Artmed: 177-206.
- Burns, J. (1978). *Leadership*. New York: Harper & Row.
- Castro, A., & Benatuil, D. (2007). Estilos de Liderazgo, Inteligencia y Conocimiento Tácito. *Anales de psicología*, 23 (2): 216–225.
- Castro Solano, A., & Casullo, M. (2003). Concepciones de Militares y Argentinos sobre el Liderazgo. *Boletín de Psicología*, 78 (s/n): 63-79
- Castro, A.S. & Casullo, M.M (2005). Estilos de Personalidad, Inteligencia y Afrontamiento como Predictores de Las Trayectorias Académicas de Cadetes en una Institución Militar. *Anuario de Psicología*, 36 (2): 197- 210.
- Castro, A.S. & Nader, M. (2004). Valoración de un Programa de Entrenamiento Académico y Militar de Cadetes Argentinos: Estudio de los Valores y del Liderazgo. *Revista iberoamericana de Evaluación y diagnóstico psicológico*, 10 (17): 75-105.
- Castro, A.S., Nader, M., & Casullo, M. (2004). La Evaluación de Los Estilos de Liderazgo En Población Civil y Militar Argentina. *Revista de Psicología, Universidad Católica del Perú*, 22 (s/n): 64-88.
- Cogliser, C.C., Schriesheim, C.A., Scandura, T.A., & Gardner, W. L. (2009). Balance in Leader and Follower Perceptions of Leader–Member Exchange: Relationships with Performance and Work Attitudes. *The Leadership Quarterly*, 20 (s/n): 452–465.
- Ford, L. R., & Seers, A. (2006). Relational Leadership and Team Climates: Pitting Differentiation Versus Agreement. *The Leadership Quarterly*, 17 (3): 258–270.
- Graen, G., & Cashman, J.F. (1975). A Role-Making Model of Leadership in Formal Organizations: A Developmental Approach. In Hunt, J.G., & Larson, L.L. (Eds.), *Leadership frontiers*. Kent, OH: Comparative Administration Research Institute, Kent State University.

- Graen, G., Cashman, J. F., Ginsburgh, S., & Schiemann, W. (1977). Effects of Linking-pin Quality upon the Quality of Working Life of Lower Participants: A Longitudinal Investigation of the Managerial Understructure. *Administrative Science Quarterly*, 22 (s/n): 491-504.
- Hersey, P., & Blanchard, H.K. (1971). Management of Organizational Behavior: Utilizing Human Resources. *Novit Industrial and Labor Relations Review*, 24 (3): 491-492.
- Hersey, P., & BLANCHARD, K. (2000). *Situational Leadership*. Center for Leadership Studies, Prentice Hall Canada: 1-4.
- Mascon, D.B., Bastos, A.V.B., & Souza, J.J. (2012). É Possível Integrar, em um Mesmo Conceito, os Vínculos Afetivo e Instrumental? O Olhar de Gestores sobre o Comprometimento com a Organização. *Revista O&S*, 19 (61): 357-373.
- Meyer, J. P., Irving, P.G., & Allen, N.J. (1998). Examination of the Combined Effects of Work Values and Early Work Experiences on Organizational Commitment. *Journal of Organizational Behavior*, 19 (1): 29-52.
- MINUSTAH: United Nations Stabilization Mission in Haiti. Retrieved March 29, from <http://www.un.org/en/peacekeeping/missions/minustah/>.
- Mowday, R.T., Porter, L.W., & Steers, R.M. *Employee-Organizational Linkages: The Psychology of Commitment, Absenteeism and Turnover*. New York: Academic Press, 1982.
- Mowday, R.T.; Porter, L.W., & Steers, R.M. (1979). The Measurement of Organizational Commitment. *Journal of Vocational Behavior*, 14 (s/n): 224-247.
- Newman, M.A., Guy, M.E., & Mastracci, S.H. (2009). *Exchange : Beyond Cognition : Affective Leadership and Emotional Labor*. Public Administration Review.
- Oliveira, F. B. de, Sant'Anna, A. de S., & Vaz, S. L. (2010). Liderança no Contexto da Nova Administração Pública : Uma Análise sob a Perspectiva de Gestores Públicos de Minas Gerais e Rio de Janeiro. *RAP, Rio de Janeiro*, 44 (6): 1453-1475.
- Scandura, T.A., & Schriesheim, C.A. (1994). Leader-Member Exchange and Supervisor Career Mentoring as Complementary Constructs in Leadership Research. *Academy of Management Journal*, nº 37 (6): 1588-1602.
- Seers, A. (1989). Team-Member Exchange Quality: A New Construct for Role-Making Research. *Organization Behavior and Human Decision Processes*, 43 (s/n): 118-135.
- Solano, C. A. (2009). Relación entre los Estilos de Liderazgo, Valores y Cultura Organizacional: Un Estudio con Líderes Civiles y Militares. *Anuario de Psicología*, 40 (2): 237-254.
- Tse, H.H.M., Dasborough, M.T., & Ashkanasy, N.M. (2008). A Multi-Level Analysis of Team Climate and Interpersonal Exchange Relationships at Work. *The Leadership Quarterly*, 19 (s/n): 195-211.
- Weick, K.E. (1969). *The Social Psychology of Organizing Reading*. MA Addison-Wesley.
- Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly*, 12 (s/n): 451-483.

IMPACT OF ALLIANCE NETWORKS ON FIRM'S INTERNATIONALIZATION

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ABSTRACT

Based on previous research into firm's internationalization and the role of alliances or networks in internationalization processes, it is proposed that there are clear motives for firm's engagement in an international alliance network. After a review of the existing literature regarding the influence of networks and alliances in the internationalization process, this paper's aim is to suggest some propositions and a conceptual framework to help analyze the influences of drivers that can explain the engagement of a firm in international alliance networks and positively impact firm's international expansion. Some conclusions and suggestions made for future research are also presented.

INTRODUCTION

Global business has witnessed a growth in alliances as a result of technological development and the globalization of competition (Das and Teng, 2002). Firms are more and more connected to a greater number of partners. Consequently, competition has moved from traditional firm versus firm contests to intergroup competition (Goerzen, 2005; Hitt *et al.*, 2012). In addition, markets are increasingly becoming international networks of relationships (Johanson and Vahlne, 2009), especially of alliances. Indeed, it is believed that participation in international alliance networks influences the speed of an international venture's development and, thus, contributes to its success (Coviello and Munro, 1995, 1997).

A significant number of studies have investigated the reasons for establishing alliances and their role in the internationalization process of the firm. Cases in point are investigations focused on international new ventures (Oviatt and McDougall, 1994), entrepreneurial high-technology firms (Coviello and Munro, 1995), SMEs (Small and Medium Enterprises), manufacturing industries (Musteen *et al.*, 2010), small advertising agencies (Boojihawon, 2007), biotech firms (Al-Laham and Souitaris, 2008; Yu *et al.*, 2011), firms in fashion supply chains (Guercini and Runfola, 2010), and software SMEs (Ojala, 2009). Recently, as more and more firms tend to compete internationally not merely by way of alliances but, also, through alliance networks, including so-called portfolios of alliances (Ozcan and Eisenhardt, 2009), the role and impact of these networks is being increasingly scrutinized.

The objective of this article is to share the results of a bibliographical research that aimed at contributing to these investigations by addressing the following two questions: (1) What are the main drivers that account for a firm's engagement in international alliance networks; (2) How do these drivers influence a firm's international expansion? Specifically, it intends to present some propositions regarding these two questions as well as a framework to help analyze whether these drivers positively influence a firm's international expansion.

The remainder of this article is divided into four parts. First, we give a brief description of the method used to carry out the bibliographical investigation. The main results of the latter are presented in the second part and are followed by propositions pertinent to the research questions. Next, we introduce an analytical framework. In the last part, we make some concluding remarks as well as suggestions for future research.

BIBLIOGRAPHICAL RESEARCH METHOD

The selection of 48 articles from the literature review was performed following the bibliographical research method developed by Villas, Macedo-Soares and Russo (2008). Firstly, two combinations of two key words – alliance \cap internationalization, and network \cap internationalization – were used to perform a journal

– alliance \cap internationalization, and network \cap internationalization – were used to perform a journal articles’ search into the following online sources of academic content: www.jstor.org, www.sciencedirect.com, ehis.ebscohost.com and www.emeraldinsight.com. Two other parameters were added to the literature review criteria: (1) papers published from September 2007 to August 2012 (i.e. a five-year time frame), and (2) the key words could be found either in the title, abstract or key word section of the published paper. From an initial total of 274 papers selected, after analyzing title, key words and abstract, only 15 papers were selected for reading. Eight papers were added to this initial selection due to the authors’ prior knowledge regarding their relevance to the theme investigated.

After analyzing the results of this first search, it was found that the Journal of International Business Studies and the Strategic Management Journal accounted for slightly more than a third of the total articles initially selected. Since these two journals are in the Top 10 business academic journals according to the ISI Impact Factor ranking, it was decided to undertake another bibliographical search specifically in these two journals, but expanding the time frame by five years. This resulted in an additional 41 papers. Also, as a consequence of the analysis of authors’ citations in the papers’ selected, another set of 37 papers were chosen for analysis. After reading these 101 articles some of them were discarded as they were judged not to be in keeping with the objective of the research. As a result, a total of 48 manuscripts, as well as several business strategy books, effectively contributed to the literature review. After describing the process applied to select the relevant papers from the existing literature, we proceeded with the construction of the theoretical basis of this paper.

RESEARCH RESULTS AND PROPOSITIONS

In this section we present the main results of the literature review that led to the formulation of pertinent propositions.

Definitions

First of all, it is important to clarify what definitions were adopted for the research’s central concepts. A firm’s international alliance networks were defined, in accordance with Gulati, Nohria and Zaheer (2000), as *a firm’s set of relationships, both horizontal and vertical, with other organizations — be they suppliers, customers, competitors, or other entities, — including relationships across industries and countries. (It is Composed of inter-organizational ties that are enduring, [...] of strategic significance for the firms entering them, and include strategic alliances (p.203)*. It is important to note that networks are sometimes called portfolios of alliances. Ozcan and Eisenhardt (2009) define portfolio as the set of direct ties (or linkages) of a focal firm (Das and Teng, 2002), observing that it can also be considered an egocentric network. Alliances were defined in keeping with Gulati (1998) as “voluntary arrangements” (p.293) among two or more independent firms, involving the exchange, sharing or joint development or provision of technologies, products or services. Drawing partly on Stonehouse, Campbell, Hamill and Purdie (2004) a firm’s alliance networks were considered international when it is operating across its national boundaries by way of alliance networks. It is important to mention that international alliance networks include global alliances, or “constellations”, a concept proposed by Gomes-Casseres (1994, 1996) to refer to networks of alliances between multiple rival partners that form the basis of new units of competition. The global alliances in the airline industry, e.g. Sky Team, Star Alliance, are eloquent examples of this type of network. Indeed, in this article, the term ‘international alliance networks’ includes both international alliance portfolios and global alliances or international constellations.

Drivers of Engagement in International Alliance Networks

In this section we present six drivers of a firm’s engagement in international alliance networks that may positively impact its international expansion. Inspired by Patton (1990), we use metaphors to represent these drivers since “metaphors can be powerful and clever ways of communicating findings. As Patton (1990) put it: “some of the classification systems have relied on metaphors as a way of communicating the connotative meaning of analytic categories” (p.400). Pertinent findings in the literature were organized around perceived communalities, resulting in the drivers. For each one, we assigned a metaphorical phrase with the intention of capturing their essence in a hopefully powerful and synthetic manner, as shown in Table 1.

Table 1: Drivers that account for a Firm’s Engagement in International Alliance Networks

- Bridges to International Markets

-
- Smoothers of Constraints
 - Accelerators of Initial Expansion
 - Providers of Valuable Membership
 - Safer and Guided Paths
 - Circle of Trusted Relationships
-

In the following six sub-sections of this paper we present the results of our bibliographical research that led to the formulation of the six metaphorically phrased drivers, as well as associated propositions.

Bridges to International Markets

When conducting business in a foreign country, a firm has disadvantages vis-à-vis local firms that may undermine its performance and internationalization process. Cases in point are existing governmentally instituted barriers to trade, insufficient understanding of laws, of foreign language, or business practices in foreign countries (Oviatt and McDougall, 1994). On the other hand, when engaging in multi-country alliances, a firm may gain simultaneous access to several foreign markets (García-Canal *et al.*, 2002).

This is even more important in the case of Small and Medium Enterprises – SMEs –, since they tend to have limited (or no) international experience and they do not have the prominence of Multinational Enterprises – MNEs – that usually attract foreign partners (Lin and Chaney, 2007). However, in the case of SMEs, despite their lack of sufficient resources to venture overseas, there is evidence of an increasing trend of internationalization (Al-Laham and Souitaris, 2008; Boojihawon, 2007; Coviello and Munro, 1997; Coviello, 2006; Johanson and Vahlne, 2009; Kontinen and Ojala, 2011a, 2011b; Lin and Chaney, 2007; Manolova *et al.*, 2010; Musteen *et al.*, 2010; Ojala, 2009; Yu *et al.*, 2011), taking advantage of their alliance networks' resources.

At the same time, there is a growing number of International New Ventures (INVs) (Coviello and Cox, 2006; McDougall *et al.*, 1994; Oviatt and McDougall, 1994), defined as business that from their inception seek to derive significant competitive advantage from the use of resources not owned by the firm, but from strategic alliances, to produce sales of outputs in multiple countries (Oviatt and McDougall, 1994).

In summary, be it a SME or not, a firm that apparently would not have the resources needed to undertake an internationalization process, is able to take advantage of its inter-firm alliance networks (Lin and Chaney, 2007) and partnerships to partially compensate this resource disadvantage (Sharma and Blomstermo, 2003). Since networks are considered to be borderless a firm, by engaging in an international alliance network, will ease its expansion into foreign markets (Johanson and Vahlne, 2003). Additionally, business relationships help identify international opportunities, impact on market choice and decrease the importance of the traditional view of having to overcome various barriers when entering a foreign country (Johanson and Vahlne, 2009). Therefore, in the case of firms participating in alliance networks, international expansion would be influenced less by countries' borders and more by the establishment and development of relationships (Johanson and Vahlne, 2003). As a result, firms that are engaged in multilateral network relationships would easily achieve significant international growth (Sasi and Arenius, 2008).

Alliance networks can also trigger initial international expansion in cases where firms that are already internationalized seek out other firms that are not yet internationalized to accompany them abroad (Chandra *et al.*, 2012; Johanson and Vahlne, 2003), extending their business relationships from the domestic market into foreign markets (Johanson and Vahlne, 2003). The existing relationships of the alliance networks generate international opportunities and, moreover, expose firms to other international network ties (Chandra *et al.*, 2012).

Also, the existing social ties may alert the firm regarding existing foreign market opportunities (Ellis, 2000). However, it is worth mentioning that weak ties are considered to be more versatile and diversified than strong ties, generating a larger variety of cues into foreign markets (Sharma and Blomstermo, 2003). The weak tie may be an outsider, or an “unseen” part of the firm's network (Welch and Welch, 1996) that provides access to unforeseen international opportunities.

As a result, new ventures with limited resources would also be able to successfully compete in the international environment (Oviatt and McDougall, 1994). Moreover, even though some parts of the broader network connections may not be visible, they would still be part of the company's capability for international growth (Welch and Welch, 1996). We consequently argue that alliance networks thus function as bridges to cross previously perceived gaps when planning to enter foreign markets. In Table 2, we summarize the most

important findings of the literature review that contributed to the perception of international alliance networks as “Bridges to International Markets”, and that may produce a positive impact on a firm’s internationalization processes.

Table 2: Findings regarding alliance networks as Bridges to International Markets

Alliance networks grant simultaneous access to several foreign markets.	García-Canal, López-Duarte, Rialp-Criado and Valdés-Llaneza (2002)
A firm that would not have the resources to undertake an international expansion would take advantage of its alliance networks to partially compensate this resource disadvantage.	Lin and Chaney (2007) Sharma and Blomstermo (2003)
Alliance networks may alert a firm to existing foreign market opportunities and trigger the initial international expansion.	Ellis (2000) Chandra, Styles and Wilkinson (2012) Johanson and Vahlne (2003)
Existing social ties may alert a firm to existing foreign market opportunities. Weak ties are considered to generate a larger variety of cues into foreign markets than strong ties.	Ellis (2000) Sharma and Blomstermo (2003) Welch and Welch (1996)

It is thus argued that international alliance networks can be perceived as bridges to international markets, notwithstanding which country is referenced as a foreign country, and whether the member is already internationalized or a domestic firm just beginning its internationalization process. When there is such a perception, it is expected that there will be a positive impact on the firm’s internationalization processes. Thus, the following propositions were formulated:

- Proposition 1a: An international alliance network is perceived by a firm as a bridge to the international market.
- Proposition 1b: An international alliance network that is perceived by a firm as a bridge to the international market positively impacts its international expansion.

Smootherers of Constraints

As previously mentioned, a firm that is internationalizing faces constraints such as existing governmentally instituted barriers to trade, or insufficient understanding of laws, of foreign languages, or business practices in the foreign countries (Oviatt and McDougall, 1994). Moreover, a firm can be at a disadvantage because it has limited (or no) international experience, limited resources, and lacks an attractive profile to foreign partners (Lin and Chaney, 2007). Additionally, there are other constraints that influence international expansion such as the lack of necessary investment (Coviello and Munro, 1995; Macedo-Soares and Mendonça, 2010), risks associated to this investment, and time demanded for integration of foreign operations (Coviello and Munro, 1995; Lin and Chaney, 2007).

Managers perceive that international alliance networks may be a source of value creation to the firm, derived from the pool of resources and capabilities generated by the network’s members (Goerzen, 2005). Alliances in the foreign market that may be formed with local firms, industrial partners, or financial partners (García-Canal *et al.*, 2002) may also help overcome the lack of knowledge of local culture and institutional norms (Hitt *et al.*, 2012), supplying knowledge on foreign markets and clients (Sharma and Blomstermo, 2003), solving unexpected problems (Lin and Chaney, 2007) faced when investing in unfamiliar foreign environments, and reducing the risk involved in going abroad (Sharma and Blomstermo, 2003). In summary, these are some of the reasons why a firm attributes its competitive advantage to international alliance networks (Lin and Chaney, 2007).

Participation in networks not only drives internationalization (Coviello and Munro, 1997; Goerzen, 2005), but may also contribute to obtaining political and financial support (García-Canal *et al.*, 2002), help mitigate and diversify risk (Coviello and Munro, 1997; García-Canal *et al.*, 2002; Lin and Chaney, 2007), contribute to lower necessary investments (Lin and Chaney, 2007; Macedo-Soares and Mendonça, 2010), entry costs (Coviello and Munro, 1995) and organizational costs (Goerzen, 2005), as it can also reduce the time needed for integration of international operations (Lin and Chaney, 2007). Therefore, alliance networks may contribute to the firm’s ability to overcome foreign country market barriers and help enter the foreign market (Johanson and Vahlne, 2003). In Table 3 we summarize the findings of our literature review regarding the perception of alliance networks as “Smootherers of Constraints”, and that also suggest a positive impact on firms’ internationalization processes.

Table 3: Findings regarding alliance networks as Smootherers of Constraints

Participation in an alliance network helps a firm overcome its lack of knowledge of a foreign country's culture and institutional norms and provides knowledge of foreign markets and customers.	Hitt <i>et al.</i> (2012) Sharma and Blomstermo (2003)
Participation in an alliance network contributes to reducing overall entry costs and the investments needed to undertake international expansion.	Coviello and Munro (1995) Lin and Chaney (2007) Macedo-Soares and Mendonça (2010)
Participation in an alliance network contributes to reducing the time needed for integration of international operations.	Lin and Chaney (2007)
Participation in an alliance network contributes to reducing and diversifying the risk associated with an international venture.	Coviello and Munro (1997) García-Canal <i>et al.</i> (2002) Lin and Chaney (2007) Sharma and Blomstermo (2003)

Therefore, it is contended that participation in alliance networks can be perceived as smoothing the prior perceived constraints to firms' internationalization, notwithstanding which country is referred to as a foreign country, and whether the firm is already internationalized or just a domestic firm beginning its internationalization process. Moreover, this perception is expected to positively impact the firm's internationalization process. Thus, we formulated the following propositions:

Proposition 2a: An international alliance network is perceived by a firm as a smoother of constraints related regarding its internationalization process.

Proposition 2b: An international alliance network that is perceived by a firm as a smoother of constraints to its internationalization process, positively impacts that firm's international expansion.

Accelerators of Initial Expansion

The involvement in international alliance networks also promotes rapid international growth (Coviello and Munro, 1995, 1997). One of the ways in which international expansion is accelerated is through the establishment of alliances with local partners (local alliances) to enter into new markets (García-Canal *et al.*, 2002).

According to the literature, this network effect that promotes rapid international expansion is influenced by several factors. Generally, higher network cohesion was found to inhibit the internationalization of certain ventures based on technological alliances, although, in the case of marketing alliance networks cohesion has promoted the initiation of foreign sales (Yu *et al.*, 2011). On the other hand, no relationship was found between geographical dispersion of ties and internationalization speed (Musteen *et al.*, 2010). Also, language congruency was found to play an important role within the international alliance networks. As intuitively expected, linguistic congruency, for example, between SMEs' top executives and the partners of their international ties accelerated firm's internationalization (Musteen *et al.*, 2010).

Whether the internationalization was client-led or market-driven, network relations influenced the patterns of international growth (Boojihawon, 2007). However, this network influence was moderated by some factors. Firms owned by families that presented a low degree of family involvement in their strategy used strategic alliances networks to speed up their internationalization process. This was not observed in the case of firms presenting a strong involvement of the family member (Fuentes-Lombardo and Fernández-Ortiz, 2010). On the other hand, in the case of EMNEs (Emerging Country's Multinational Enterprise), rapid internationalization was a reflection of an exogenous factor: the recent changes in the global business environment (Ramamurti, 2012).

Table 4 summarizes the main findings of our bibliographical research regarding the perception of alliance networks as "Accelerators of Initial Expansion" and suggest they may produce a positive impact on a firm's internationalization processes.

Table 4: Findings regarding alliance networks as Accelerators of Initial Expansion

The involvement in international alliance networks promotes rapid international growth through establishment of alliances with local partners.	Coviello and Munro (1995, 1997) García-Canal <i>et al.</i> (2002)
The involvement in international alliance networks promotes the initiation of foreign sales.	Yu <i>et al.</i> (2011)
Linguistic congruency with international ties accelerated firm's internationalization.	Musteen <i>et al.</i> (2010)

Therefore, it is claimed that the participation in alliance networks can be perceived to increase the speed of the initial international expansion into a foreign country, independently of which country is referenced as a foreign country, and despite the fact that the firm is already internationalized or a domestic operating firm

starting its internationalization process. It is also expected that this perception positively impacts the internationalization process. We, thus, formulated the following propositions:

- Proposition 3a: An international alliance network is perceived by a firm as a factor that accelerates the initial expansion into the foreign country.
- Proposition 3b: An international alliance network that is perceived by a firm as a factor that accelerates the initial expansion into the foreign country positively impacts a firm's international expansion.

Providers of Valuable Membership

Since foreign country alliance networks are not comprised of firms that are not participants (Johanson and Vahlne, 2003) and because markets are considered to be networks of relationships (Johanson and Vahlne, 2009), insidership in an important international network is necessary for successful internationalization (Johanson and Vahlne, 2009, 2011). Therefore, a firm that does not belong to a certain network is called an outsider of the network and faces the "liability of outsidership" (Johanson and Vahlne, 2009, 2011), due to the fact that it cannot take advantage of the resources provided by the network and does not have access to markets created by network members.

This insidership advantage is even more fundamental because participants of a network perceive that the developed relationships are not easily replaceable (i.e. high switching costs) (Larson and Starr, 1993), and also because it takes time to develop the dense network of socioeconomic ties (Johanson and Vahlne, 2003; Larson and Starr, 1993) that are characteristic of international alliance networks. Specifically, firms that are INVs (International New Ventures) face other types of liabilities: the liabilities of newness and smallness, since they very often do not have the necessary means to acquire all resources required for internationalization (Coviello and Cox, 2006). However, it was observed that firms overcame such liabilities by engaging in alliance networks that enhanced their resource and knowledge base (Loane and Bell, 2006). Moreover, firms that form a cross-border strategic alliance with local partners may benefit from their knowledge of foreign country's idiosyncrasies such as local market knowledge, sources of local capital funding, legal procedures and politics (Hitt *et al.*, 2012). Therefore, firms that are members of alliance networks do not have to go to great lengths to collect country specific institutional knowledge (Sharma and Blomstermo, 2003). Moreover, these network ties are even more useful in cases when firms face greater variation or diversity in their international operations (Lindstrand *et al.*, 2009).

Similarly, SMEs usually face greater competition in the host market than larger firms due to a lack of local knowledge and lack of resources (Lin and Chaney, 2007) needed to properly promote the expansion in the foreign country. Therefore, to be a member of an international alliance network should always be a key concern for a firm aiming to expand its local operations to foreign markets or to further expand its international operations. Every internationalized firm has a certain level of dependency on resources controlled by other firms (Johanson and Mattsson, 1987), that influence the internationalization process. Moreover, to be a member of an alliance network is also a way of accessing unforeseen foreign markets opportunities, since the firm "can be found by other firms that have already identified international opportunities" (Chandra *et al.*, 2012, p.95) and because "each foreign client is a source of new ties and new knowledge" (Sharma and Blomstermo, 2003, p.750). An interesting example of this insidership paradigm was given by Hatani (2009): a group of Toyota's suppliers decided to establish subsidiaries in Tianjin (China) after they discovered Toyota's intention to build an assembly plant in the area. By the time Toyota had come to an agreement with the local government, there were already 18 units of Toyota's traditional suppliers in the area pre-clustering around the "virtual assembly plant". These firms aimed to be prepared to supply Toyota in its foreign venture and to concede no opportunity to local competitors, building industrial facilities that seemed over scaled for local demand, but adequate for Toyota's forecast future demand. Table 5 presents a summary of the findings of our literature review regarding the perception of alliance networks as "Providers of Valuable Membership", and that may produce a positive impact on firms' internationalization process.

Table 5: Findings regarding alliance networks as Providers of Valuable Membership

Firms perceive that there is an insidership advantage necessary for successful international expansion.	Johanson and Vahlne (2009, 2011)
Firms overcome liabilities of newness and foreignness by engaging in alliance networks that enhance their resource and knowledge base.	Loane and Bell (2006)
A firm that forms a cross-border strategic alliance with local partners may benefit from their knowledge of foreign country's idiosyncrasies such as local market knowledge,	Hitt <i>et al.</i> (2012)

sources of local capital funding, legal procedures and politics.	
Alliance network ties are even more useful in cases when a firm faces greater variation or diversity in their international operations.	Lindstrand, Eriksson and Sharma (2009)
Participation in an alliance network grants access to unforeseen foreign markets opportunities.	Chandra <i>et al.</i> (2012)

Hence, it is argued that to be a member of an international alliance network can be perceived to be a key concern for successful international expansion into a foreign country, notwithstanding which country is referenced as a foreign country, and whether the firm is already internationalized or a domestic firm just starting its internationalization process. Also, as the firm is engaged in an international network (i.e. it is an *insider*), a positive impact is to be expected on its international expansion. The following propositions were thus formulated:

- Proposition 4a: A firm's participation in an international alliance network is perceived to provide valuable membership advantages.
- Proposition 4b: The Valuable Membership provided by an alliance network is perceived by a firm as having a positive impact on its international expansion.

Safer and Guided Paths

The internationalization process that involves the use of alliances or networks is said to differ significantly from the traditional one (García-Canal *et al.*, 2002). The business contacts within the network provide the initial trigger for internationalization (Coviello and Munro, 1997), influence foreign market selection, entry mode decision (Coviello and Munro, 1995, 1997; Coviello, 2006) and may either facilitate or constrain new product developments and market diversification (Coviello and Munro, 1997). Chandra *et al.* (2012) noticed that domestic and international networks also shape cross-border venturing activities, opportunity identification and development, configuring a path-dependent process.

Firms tend to adopt a similar international entry mode to their other network partners (Lin and Chaney, 2007). However, this does not prevent some SMEs from choosing a market as a result of product strategy or of requirements for implementation of after-sales support for local customers, without any influence of the network (Ojala, 2009). Nevertheless, firms tend to use their existing network relationships to promote initial expansion in the early phase of internationalization (Ojala, 2009; Sasi and Arenius, 2008), to find new partners, to increase their attractiveness (Sasi and Arenius, 2008) or to build new relationships in order to achieve further international expansion (Ojala, 2009).

With respect to the identification of potential linkages to be established in the local market to promote internationalization into the foreign country, general business contacts were perceived as the most relevant, followed by local customers, the sales force of local customers and existing partners (Coviello and Munro, 1995). Besides, it was noted that participation in alliance networks increased firms' survival rate (Lee *et al.*, 2012) and that some customers provided firms with a secure step into an uncertain foreign market, supporting their international expansion (Boojihawon, 2007). Moreover, suppliers may also provide safe steps to an international expansion by enhancing opportunities to exploit identified local market trends, and by supporting firms in the provision of follow-up services by the co-development of customized local solutions (Macedo-Soares and Mendonça, 2010).

Finally, the literature suggested that firms may also take advantage of their membership in multi-country alliances by using alliances to improve their international competitiveness in multiple countries (García-Canal *et al.*, 2002). However, the process is "co-evolutionary, gradual and based on feedback" (Sharma and Blomstermo, 2003, p.705), with the stock of resources and knowledge provided by current ties allowing the firm to further expand its network ties and broaden the international expansion of its activities. The findings of the literature review regarding the perception of alliance networks as "Safer and Guided Paths", and that also suggest a positive impact on a firm's internationalization processes are summarized in Table 6.

Table 6: Findings regarding alliance networks as a Safer and Guided Paths

Business contacts within the network influence foreign market selection.	Coviello (2006) Coviello and Munro (1995, 1997)
Domestic and international networks shape cross-border venturing activities.	Chandra <i>et al.</i> (2012)
Domestic and international networks shape opportunity identification and development.	Chandra <i>et al.</i> (2012)

A firm tends to take a similar international entry mode to its other network partners.	Lin and Chaney (2007)
A firm tends to use its existing network relationships to find new partners.	Sasi and Arenius (2008)
A firm tends to use its existing network relationships to increase their attractiveness.	Sasi and Arenius (2008)
A firm tends to use its existing network relationships to build new relationships in order to achieve further international expansion.	Ojala (2009)

Thus, it is contended that firms that are members of an international alliance network tend to follow an internationalization path that is guided by the internationalization profile of the network members, regardless of the fact that the firm is already internationalized or a domestic firm starting its internationalization process, ensuring a safer path and positively impacting international expansion. Consequently, we formulated the following propositions:

- Proposition 5a: A firm that is a member of an international alliance network tends to follow an internationalization path guided by the alliance network.
- Proposition 5b: A firm that is a member of an international alliance network and follows an internationalization path guided by the alliance network, perceives this path to be safe.
- Proposition 5c: A firm that is a member of an international alliance network and follows a guided internationalization path that is perceived to be safe, has a more successful international expansion.

Circle of Trusted Relationships

The firm's participation in alliance networks offers a potential for building relationships based on trust and commitment. Both these attributes are required in the process of building joint assets (Johanson and Vahlne, 2011) and are considered preconditions for internationalization (Johanson and Vahlne, 2009), especially because the existing relationships are perceived to be very important for obtaining initial credibility when entering into foreign countries (Coviello and Munro, 1995).

This process of developing a relationship based on mutual trust and commitment is evolutionary and characterized by the fact that it does not imply formal agreements, merely a common history of joint business experiences (Johanson and Vahlne, 2009). It is, however, a very delicate process, since it may be jeopardized by any decision a partner takes without considering the other partners' interests. This possibility is even more critical in the case of international alliance networks due to the diversity and worldwide scope of the latter's relationships (García-Canal *et al.*, 2002), which could lead to partner misconduct that is complicate to manage.

Nevertheless, firms continue to establish alliance networks based on mutual trust and commitment that act as important drivers of international expansion. This is also the case of SMEs (Boojihawon, 2007), family firms (Kontinen and Ojala, 2011a) and INVs (Coviello, 2006), where trusted relationships act as a the main reason to internationalize, providing a firm with a secure step into an uncertain foreign market (Boojihawon, 2007) and acting as a strategic resource for dealing with local market idiosyncrasies, especially in cases where the market is perceived as "distant" from the firm's traditional markets (Guercini and Runfola, 2010). Alliances with local firms may also legitimate the firm in the foreign market and stimulate third-party referrals, acting as a driver for growth and internationalization (Coviello, 2006). Table 7 summarize the findings of our literature review regarding the perception of an alliance network as a "Circle of Trusted Relationships", and that also suggest a positive impact on a firm's internationalization processes.

Table 7: Findings regarding alliance networks as Circle of Trusted Relationships

Trust on the part of alliance network partners is required in the process of building joint assets.	Johanson and Vahlne (2011)
Trust on the part of alliance network partners is a precondition for internationalization.	Johanson and Vahlne (2009)
Trust on the part of alliance network partners is a prime reason to internationalize.	Boojihawon (2007)
Trusted local alliance network partners provide a firm with secure steps into uncertain foreign markets.	Boojihawon (2007)
Trust on the part of local alliance network partners acts as a strategic resource for dealing with local market idiosyncrasies, especially in cases where the market is perceived as "distant" from the firm's traditional markets.	Guercini and Runfola (2010)
Trust on the part of local alliance network partners stimulates third-party referrals, acting as a driver for growth and internationalization	Coviello (2006)

Therefore, it is contended that trust on the part of alliance networks partners is a necessary driver for a firm’s internationalization, independently of which country is referred to as a foreign country, and despite the fact that the firm is already internationalized or a domestic firm starting its internationalization process. Furthermore, this trusted local alliance network is expected to positively impact firm’s internationalization process. Thus, we formulated the following propositions:

- Proposition 6a: An international alliance network is perceived by a firm as a circle of trusted relationships.
- Proposition 6b: The firm’s participation in an alliance network that is perceived as a circle of trusted relationships ensures a positive impact on its international expansion.

On the basis of the results of our bibliographical research, and with a view to identifying the main drivers that account for a firm’s engagement in international alliances, we propose a draft framework to help analyze whether these drivers positively influence its international expansion.

ANALYTICAL FRAMEWORK

As mentioned in the previous section, we identified six drivers in the literature that supposedly account for firms’ engagement in international alliance networks:

- (1) Bridges to International Markets,
- (2) Smoothers of Constraints,
- (3) Accelerators of Initial Expansion,
- (4) Providers of Valuable Membership,
- (5) Safer and Guided Paths, and
- (6) Circle of Trusted Relationships.

It was also argued that if alliance networks are perceived as representing either one, or more, of these drivers, they will independently contribute to a positive impact on firms’ international expansion. Therefore, as a result of the analysis presented above and inspired by some International Business (IB) studies that have discussed frameworks (Javalgi and Martin, 2007; Malhotra and Hinings, 2010; Welch and Welch, 1996), we tentatively drafted the conceptual framework presented in Figure 1. The objective was not only to assess whether the different drivers influenced firms’ international expansion, but also the relative impact of these drivers on the latter.

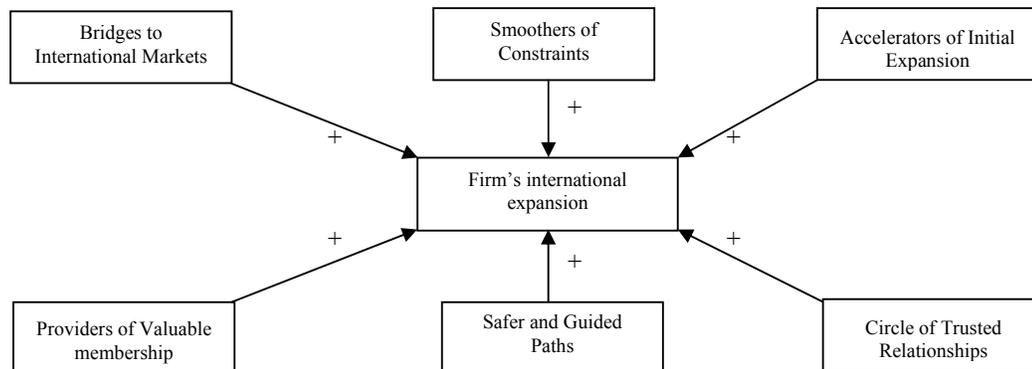


Figure 1: Drivers that account for firms’ engagement in international alliance networks and impact firms’ international expansion.

As shown in the framework by the positive signs, each driver is expected to have a positive impact on firms’ international expansion. The overall results of these impacts are graphically represented by the arrows and the positive signs. On the other hand, if an empirical study discovers that a driver does not influence international expansion in a specific context, this box and the respective arrow should be withdrawn from the framework. It should be highlighted that we are not proposing any of the five existing alternatives to measure the level of a firm’s international expansion, as mentioned by Hennart (2011). The objective of our theoretical framework is primarily to analyze if the driver is perceived as having a positive impact on a

firm's international expansion, but not the extent of this impact. In the next section we present some final considerations and suggestions for further research.

CONCLUSION

By reviewing the literature on the internationalization of the firm and on the role of alliance networks in internationalization processes, we hope to have contributed to highlighting some important drivers that might account for a firm's engagement in international alliance networks and positive impact on the performance of its/their international expansion. We also formulated some propositions regarding these drivers that could be tested in the scope of future empirical research. Despite the fact that some studies have already investigated the impact of alliance networks on the internationalization process (Al-Laham and Souitaris, 2008; Boojihawon, 2007; Coviello and Munro, 1995; Guercini and Runfola, 2010; Musteen *et al.*, 2010; Ojala, 2009; Oviatt and McDougall, 1994; Yu *et al.*, 2011), we did not find any analytical framework that contemplated all the different drivers proposed. Therefore, it is hoped that after testing and refining it, this framework could be a useful tool for managers and researchers to enhance their international alliance network management.

We believe that such a tool can be all the more valuable in the case of a firm from emerging countries, where there is still a great lack of understanding of the impact of alliance networks on the internationalization process (Kiss *et al.*, 2012), as well as regarding the motives that drive managers to engage firms in cross-border alliance networks (Ellis, 2011). Since this study was mainly based on the literature of international networks and alliances, there was no intention of comparing findings from this field of knowledge with that of international entrepreneurship. This could constitute an opportunity for important future investigations. Another suggestion for further research would be to focus on firms that are considered outliers, in order to verify the significance and impact of the above mentioned drivers in the case of such firms.

REFERENCES

- Al-Laham, A. and Souitaris, V. (2008), "Network embeddedness and new-venture internationalization: Analyzing international linkages in the German biotech industry," *Journal of Business Venturing*, Vol. 23 No. 5, pp. 567–586.
- Boojihawon, D.K. (2007), "Network Dynamics and the Internationalisation Process of Small Advertising Agencies," *The Service Industries Journal*, Vol. 27 No. 6, pp. 809–829.
- Chandra, Y., Styles, C. and Wilkinson, I.F. (2012), "An Opportunity Based View of Rapid Internationalization," *Journal of International Marketing*, Vol. 20 No. 1, pp. 74–102.
- Coviello, N.E. (2006), "The Network Dynamics of International New Ventures," *Journal of International Business Studies*, Vol. 37 No. 5, pp. 713–731.
- Coviello, N.E. and Cox, M.P. (2006), "The resource dynamics of international new venture networks," *Journal of International Entrepreneurship*, Vol. 4 No. 2-3, pp. 113–132.
- Coviello, N.E. and Munro, H.J. (1995), "Growing the entrepreneurial firm: networking for international market development," *European Journal of Marketing*, Vol. 29 No. 7, pp. 49–61.
- Coviello, N.E. and Munro, H.J. (1997), "Network Relationships and the Internationalisation Process of Small Software Firms," *International Business Review*, Vol. 6 No. 4, pp. 361–386.
- Das, T.K. and Teng, B.-S. (2002), "Alliance Constellations: A Social Exchange Perspective," *The Academy of Management Review*, Vol. 27 No. 3, pp. 445–456.
- Ellis, P.D. (2000), "Social Ties and Foreign Market Entry," *Journal of International Business Studies*, Vol. 31 No. 3, pp. 443–469.
- Ellis, P.D. (2011), "Social ties and international entrepreneurship: Opportunities and constraints affecting firm internationalization," *Journal of International Business Studies*, Vol. 42 No. 1, pp. 99–127.

- Fuentes-Lombardo, G. and Fernández-Ortiz, R. (2010), "Strategic Alliances in the Internationalization of Family Firms: An Exploratory Study on the Spanish Wine Industry," *Advances in Management*, Vol. 3 No. 6, pp. 45–54.
- García-Canal, E., López-Duarte, C., Rialp-Criado, J. and Valdés-Llaneza, A. (2002), "Accelerating international expansion through global alliances: a typology of cooperative strategies," *Journal of World Business*, Vol. 37, pp. 91–107.
- Goerzen, A. (2005), "Managing alliance networks: Emerging practices of multinational corporations," *The Academy of Management Executive (1993-2005)*, Vol. 19 No. 2, pp. 94–107.
- Gomes-Casseres, B. (1994), "Group Versus Group: How Alliance Networks Compete," *Harvard Business Review*, Vol. 72 No. 4, pp. 62–74.
- Gomes-Casseres, B. (1996), *The Alliance Revolution: The New Shape of Business Rivalry*, Cambridge, MA, Harvard University Press, p. 320.
- Guercini, S. and Runfola, A. (2010), "Business networks and retail internationalization: A case analysis in the fashion industry," *Industrial Marketing Management*, Vol. 39 No. 6, pp. 908–916.
- Gulati, R. (1998), "Alliances and networks," *Strategic Management Journal*, Vol. 19 No. 4, pp. 293–317.
- Gulati, R., Nohria, N. and Zaheer, A. (2000), "Strategic networks," *Strategic Management Journal*, Vol. 21 No. 3, pp. 203–215.
- Hatani, F. (2009), "Pre-clusterization in emerging markets: the Toyota group's entry process in China," *Asia Pacific Business Review*, Vol. 15 No. 3, pp. 369–387.
- Hennart, J.-F. (2011), "A Theoretical Assessment of the Empirical Literature on the Impact of Multinationality on Performance," *Global Strategy Journal*, Vol. 1 No. 1-2, pp. 135–151.
- Hitt, M.A., Ireland, R.D. and Hoskisson, R.E. (2012), *Strategic Management: Concepts and Cases: Competitiveness and Globalization*, Mason, South-Western College Pub, 10th ed., p. 952.
- Javalgi, R. (Raj) G. and Martin, C.L. (2007), "Internationalization of services: identifying the building-blocks for future research," *Journal of Services Marketing*, Vol. 21 No. 6, pp. 391–397.
- Johanson, J. and Mattsson, L.-G. (1987), "Interorganizational Relations in Industrial Systems: A Network Approach Compared with the Transaction-Cost Approach," *International Studies of Management & Organization*, Vol. 17 No. 1, pp. 34–48.
- Johanson, J. and Vahlne, J.-E. (2003), "Business Relationship Learning and Commitment in the Internationalization Process," *Journal of International Entrepreneurship*, Vol. 1 No. 1, pp. 83–101.
- Johanson, J. and Vahlne, J.-E. (2009), "The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership," *Journal of International Business Studies*, Vol. 40 No. 9, pp. 1411–1431.
- Johanson, J. and Vahlne, J.-E. (2011), "Markets as networks: implications for strategy-making," *Journal of the Academy of Marketing Science*, Vol. 39 No. 4, pp. 484–491.
- Kiss, A.N., Danis, W.M. and Cavusgil, S.T. (2012), "International entrepreneurship research in emerging economies: A critical review and research agenda," *Journal of Business Venturing*, Vol. 27 No. 2, pp. 266–290.
- Kontinen, T. and Ojala, A. (2011a), "Network ties in the international opportunity recognition of family SMEs," *International Business Review*, Vol. 20 No. 4, pp. 440–453.

- Kontinen, T. and Ojala, A. (2011b), "International Opportunity Recognition Among Small and Medium-Sized Family Firms," *Journal of Small Business Management*, Vol. 49 No. 3, pp. 490–514.
- Larson, A. and Starr, J.A. (1993), "A Network Model of Organization Formation," *Entrepreneurship Theory and Practice*, Vol. 17, pp. 5–15.
- Lee, H., Kelley, D., Lee, J. and Lee, S. (2012), "SME Survival: The Impact of Internationalization, Technology," *Journal of Small Business Management*, Vol. 50 No. 1, pp. 1–19.
- Lin, K.-H. and Chaney, I. (2007), "The Influence of Domestic Interfirm Networks on the Internationalization Process of Taiwanese SMEs," *Asia Pacific Business Review*, Vol. 13 No. 4, pp. 565–583.
- Lindstrand, A., Eriksson, K. and Sharma, D.D. (2009), "The perceived usefulness of knowledge supplied by foreign client networks," *International Business Review*, Vol. 18 No. 1, pp. 26–37.
- Loane, S. and Bell, J. (2006), "Rapid internationalisation among entrepreneurial firms in Australia, Canada, Ireland and New Zealand: An extension to the network approach," *International Marketing Review*, Vol. 23 No. 5, pp. 467–485.
- Macedo-Soares, T.D.L. van A. de and Mendonça, A.P.G. de. (2010), "Strategic Implications of Alliances and Other Linkages of Leading Telecom Operators in Brazil: Network and International Perspectives," *Latin American Business Review*, Vol. 11 No. 1, pp. 45–73.
- Malhotra, N. and Hinings, C. (Bob). (2010), "An organizational model for understanding internationalization processes," *Journal of International Business Studies*, Vol. 41 No. 2, pp. 330–349.
- Manolova, T.S., Manev, I.M. and Gyoshev, B.S. (2010), "In good company: The role of personal and inter-firm networks for new-venture internationalization in a transition economy," *Journal of World Business*, Vol. 45 No. 3, pp. 257–265.
- McDougall, P.P., Shane, S.A. and Oviatt, B.M. (1994), "Explaining the Formation of International New Ventures: The Limits of Theories From International Business Research," *Journal of Business Venturing*, Vol. 9 No. 6, pp. 469–487.
- Musteen, M., Francis, J.D. and Datta, D.K. (2010), "The influence of international networks on internationalization speed and performance: A study of Czech SMEs," *Journal of World Business*, Vol. 45 No. 3, pp. 197–205.
- Ojala, A. (2009), "Internationalization of knowledge-intensive SMEs: The role of network relationships in the entry to a psychically distant market," *International Business Review*, Vol. 18 No. 1, pp. 50–59.
- Oviatt, B.M. and McDougall, P.P. (1994), "Toward a Theory of International New Ventures," *Journal of International Business Studies*, Vol. 25 No. 1, pp. 45–64.
- Ozcan, P. and Eisenhardt, K.M. (2009), "Origin of Alliance Portfolios: Entrepreneurs , Network Strategies , and Firm Performance," *The Academy of Management Journal*, Vol. 52 No. 2, pp. 246–279.
- Patton, M.Q. (1990), *Qualitative Evaluation and Research Methods*, London, Sage Publications, Inc., 2nd ed., p. 532.
- Ramamurti, R. (2012), "Commentaries: What is Really Different About Emerging Market Multinationals?," *Global Strategy Journal*, Vol. 2 No. 1, pp. 41–47.
- Sasi, V. and Arenius, P. (2008), "International new ventures and social networks: Advantage or liability?," *European Management Journal*, Vol. 26 No. 6, pp. 400–411.
- Sharma, D.D. and Blomstermo, A. (2003), "The internationalization process of Born Globals: a network view," *International Business Review*, Vol. 12 No. 6, pp. 739–753.

Stonehouse, G., Campbell, D., Hamill, J. and Purdie, T. (2004), *Global and transnational business: strategy and management*, Chichester, West Sussex, John Wiley & Sons, 2nd ed., p. 474.

Villas, M.V., Macedo-Soares, T.D.L. van A. de and Russo, G.M. (2008), "Bibliographical Research Method for Business Administration Studies: a Model Based on Scientific Journal Ranking," *BAR. Brazilian Administration Review*, Vol. 5 No. 2, pp. 139–159.

Welch, D.E. and Welch, L.S. (1996), "The Internationalization Process and Networks: A Strategic Management Perspective," *Journal of International Marketing*, Vol. 4 No. 3, pp. 11–28.

Yu, J., Gilbert, B.A. and Oviatt, B.M. (2011), "Effects of Alliances, Time, and Network Cohesion on the Initiation of Foreign Sales by New Ventures," *Strategic Management Journal*, Vol. 32 No. 4, pp. 424–446.

SOCIAL RESPONSIBILITY IN TECHNOLOGY-BASED ENTERPRISES: A CASE STUDY ON INCUBATED SMEs

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ABSTRACT

The objective of this paper is two-fold: (i) to introduce a conceptual model to assess incubated technology-based small and medium enterprises (SMEs) concerning the adoption of ISO 26000 guidelines; and (ii) to demonstrate its applicability through a multiple-case study on selected incubated technology-based SMEs. We believe that the conceptual generic model, due to its flexible, dynamic and systemic characteristics, can be useful not only for incubated SMEs, but also for managers of technology-based incubators, and for business associations, regional and national networks, within the wide context of business incubators. Managers of SMEs, public managers in general and academic specialists can also take advantage of the knowledge generated during this research to improve their strategies towards sustainable development, by adopting in next future the ISO 26000 guidelines.

INTRODUCTION

From the historical and economic perspectives, the growing use of the technology business incubator strategies stems from evidences that industrial innovation has had demonstrable positive effects on regional economic growth. They have been considered a fundamental instrument for supporting entrepreneurship and as the birthplace of some of the most prominent techno poles. The success achieved by these initiatives attracted the attention of government officials, academy and industry representatives, which started to see the technology business incubators' model as a reference for business incubators in general. They attempted to enlarge the previous scopes of incubation policies and programs, going beyond the support to spin-off entrepreneurs.

Within this broader perspective, the support for technology-based start-ups has also encompassed entrepreneurship and young enterprises from the most different segments of economic activity. Following this new path, technology business incubators began to act as supportive instrument of local development policies, by creating new enterprises and strengthening small ones that already existed. Incubators can be classified as mixed use, technology, manufacturing, service, and other (which include community-revitalization incubators and incubators for web-related businesses).

The present work focuses on technology business incubators, here defined as those that nurture young firms whose products, processes or services are generated from the results of applied research, and in which technology represents high aggregated value. Once economic sustainability is an inherent principle to the very conception of the technology business incubators, the challenge is how to improve incubated businesses performance by embedding social and environmental criteria and objectives into strategic and operational processes of incubators and incubated firms.

In Brazilian university incubators, it has been observed that the strategies and procedures for selecting candidates for incubation have been almost exclusively based on technical and economic requirements (including those concerning market prospects). There is a lack of data, studies, and systematic investigation about effective and potential contributions of business incubators for the incorporation of environmental and social dimensions into business strategies of incubated technology-based enterprises.

We assumed that the perception and reality of incubated technology-based enterprises' performance on social responsibility can influence: (i) the creation of new sustainable competitive advantages; (ii) enterprise's reputation; (iii) organizational capacity to attract and retain workers and fulfill their stakeholders' expectations; (iv) maintenance of employees' morale, commitment and productivity; and (v) relationship with companies, governments, the media, their stakeholders and communities in which they operate.

From this perspective, the objective of this paper is two-fold: (i) to introduce a new conceptual generic model to assess incubated technology-based small and medium enterprises (SMEs) concerning the adoption of ISO 26000 guidelines; and (ii) to demonstrate its applicability through a multiple-case study on selected incubated technology-based SMEs.

Initially, we present the theoretical background addressing central themes of the research – small and medium enterprises, social corporate responsibility and performance assessment, with a focus on the balanced scorecard tool. Afterwards, we describe the methodology adopted during the research, and discuss the results and implications for public policies and guidelines for future research.

Aiming to improve the global performance of technology-based incubators and to widen the reach of support to small and medium enterprises generated in these innovation environments innovation and that want to act in a social and environmentally responsible way, the problem to be investigated comes from the following question: “How can one evaluate the adoption of ISO 26000 Standard guidelines by technology-based enterprises nurtured in a university incubator, in Brazil, with the perspective of defining new criteria for selection processes of candidates and performance indicators of incubated enterprises?”

Once the research problem has been defined, the general objective was identified as: “to propose and validate a conceptual model for evaluating how technology-based enterprises nurtured in a university incubator in Brazil have implemented SR guidelines according to ISO 26000 Standard framework, within the perspective of defining new criteria for selecting candidates and assessing incubated enterprises performance”.

THEORETICAL BACKGROUND

As illustrated in Figure 1 below, the theoretical background discussed in this section consists of core and specific themes that support the design of a conceptual framework for assessing corporate social responsibility (CSR) in incubated technology-based small and medium enterprises (SMEs).

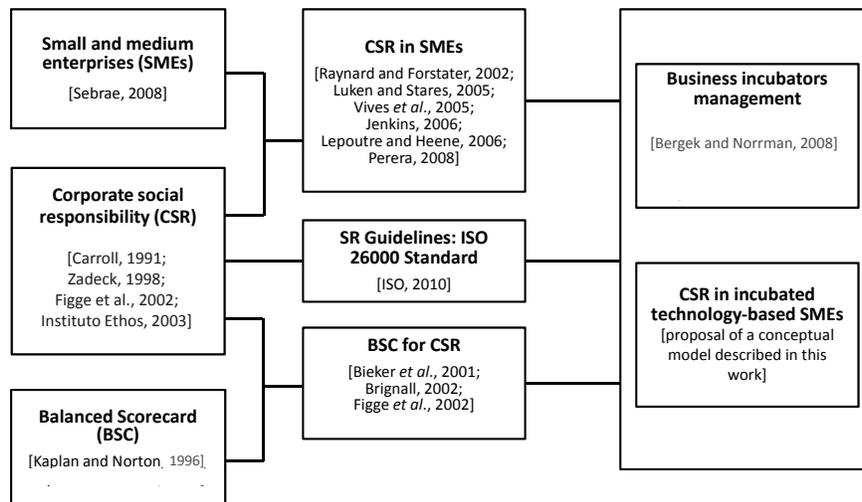


Figure 1: A schematic illustration of the theoretical background components

The basis for the current concept of social corporate responsibility – CSR – were launched by representatives of the World Business Council for Sustainable Development, in 1998, in Holland. Instituto Ethos de Empresas e Responsabilidade Social (Instituto Ethos, 2003) refers to CSR as:

[...] the way of management that defines itself by the ethical and transparent relation of the enterprise as a whole with all of the audiences in which it has a relationship and by the establishment of corporate goals compatible with the sustainable development of society, preserving environmental and cultural resources for future generations, respecting diversity and promoting the reduction of social inequities (p.12).

The concept of CSR was associated to the engagement of the stakeholders and to the corporate sustainability in its economic, social and environmental dimensions, as a resultant of sustainable development from the business perspective. Indeed, this concept has been consolidating itself in a systematic and multidimensional way, with a focus on interdependence and interconnectivity between different stakeholders connected directly or indirectly to the enterprise business. As a matter of fact, corporate social responsibility (CSR) has been pointed as a phenomenon that has led enterprises to rethink their role, their obligations, and, even more, the way they manage their businesses. It can be also defined as a holistic, socially responsible and ethical attitude of enterprises in their relationships, namely with shareholders, employees, communities, suppliers, clients, governments and the environment (Carroll, 1991; Figge et al., 2002, Zadek, 1998; Instituto Ethos, 2003).

The most general and accepted concept of SR refers to four categories defined by Carroll (1991). The Carroll's model includes economic, legal, ethical and voluntary responsibilities. These categories are not mutually exclusive, having on one side economic interests and on the other social interests. The relevance of Carroll's model stems from the basic assumption that social responsibility should not be assessed separately from the economic performance, thus being part of the global responsibility of the enterprise. In this work, we emphasize that enterprises should integrate social and environmental criteria at the normative level of strategic management of their businesses, translating these criteria into objectives and goals, whose results and performance can be measured in a systemic view.

For the definition of small and medium enterprises, we used the classification adopted by Serviço Brasileiro de Apoio às Micro e Pequenas Empresas (Sebrae, 2008): (i) micro enterprise: in the industry, up to 19 people workers; on trade and services, up to 09 workers; (ii) small enterprise: in the industry, from 20 to 99 workers; on trade and services, from 10 to 49 workers; (iii) medium enterprise: in the industry, from 100 to 499 workers; on trade and services, from 50 to 99 workers; and (iv) large enterprise: in the industry, over 500 workers; on trade and services, over 100 workers.

From the literature review, we could find studies arguing that SMEs are better positioned and equipped to support socially responsible behavior than large enterprises. On the other hand, several researchers have argued that, in practice, SMEs present themselves as an obstacle to the implementation of a SR philosophy, comparatively to large enterprises. SMEs' managers point out that they don't have enough time or resources to devote to SR, even the attendance of legal requirements constitutes, at times, a difficulty. The previous empirical works carried out by Raynard and Forstarter (2002); Vives et al. (2005); Lepoutre and Heene (2006); and Perera (2008) reinforced those difficulties and proposed recommendations to future studies, which were considered and discussed during the second phase of this work (multiple-case study).

Balanced Scorecard or BSC is a tool of strategic planning and global performance assessment that became commonly recognized as a system of strategic management, communication and performance evaluation by various organizations all over the world: enterprises, governmental agencies, and institutions of Science, Technology and Innovation (S,T&I). As defined by Kaplan and Norton (1996), the BSC model translates an organization's mission and strategy into a comprehensive set of performance measures that provides the framework for a strategic measurement and management system". This strategic management system measures global performance in four 'balanced' perspectives: (i) 'financial', that summarizes "the readily measurable economic consequences of actions already taken"; (ii) 'market', that contains measures that identify the customer and market segments in which the organization will compete and the measures of the organization's performance in these targeted segments; (iii) 'internal process' that measures the critical internal processes in which the organization must excel; and (iv) 'learning and growth' that measures the infrastructure that the organization must build to create long-term growth and improvement.

With an attempt to apply the BSC model in incubated technology-based SMEs within the perspective of CSR, we will discuss in the next section the potential of the BSC model as an assessment tool for 'measuring' in this particular context the adoption of SR guidelines posed by ISO 26000 Standard (ISO, 2010).

Despite the success experienced by Kaplan and Norton regarding the acceptance of BSC model, since 1996, when their book titled “The Balanced Scorecard: translating strategy into action” was launched, authors as Bieker et al. (2001), Figge et al. (2002) and Brignall (2002) have argued that the use of financial and human resources did not figure anymore as the only determinant factors for promoting competitive advantages. From this perspective, Bieker et al. (2001), Brignall (2002) and Figge et al. (2002) launched a different perspective concerning BSC tool, with an attempt to determine how enterprises can benefit from a ‘Sustainable Strategic Map’, incorporating adaptations to the original concept formulated by Kaplan and Norton (1996). The lack of integration between the three dimensions (economic, social and environmental) on the usual BSC tool still represents an obstacle for organizations incorporating SR objectives and initiatives into their strategies in an effective way.

The creation of a ‘Sustainable Strategic Map’, based upon BSC model, allows organizations to evaluate and implement environmental and social initiatives within a strategic view, at all levels of the corporation. The ‘Sustainable Strategic Map’ also contributes to communicate and transform CSR into a constant, planned and well-measured business issue.

To integrate the social and environmental aspects to conventional BSC, Figge et al. (2002) suggested three alternatives: (i) incorporation of the social and environmental dimensions in three of the original perspectives of the BSC; (ii) creation of a fifth perspective exclusive to the environmental and social dimensions; and (iii) creation of an exclusive BSC for the environmental and social sustainability, but dependent of one of the previous alternatives.

The conceptualization of each alternative reflects the fundamental difference between the three proposals. While the first two integrate the environmental and social aspects to the conventional BSC (with the creation or not of a fifth dimension), the third comprises of a variant that is a derivative of the previous ones. The third proposal is configured as a step before the adoption of a first sustainable BSC, almost as a refinement of this first solution.

Concerning the two first alternatives, Figge et al. (2002) argued that they are not mutually exclusives, and can be used simultaneously, in accordance with the characteristics of strategic environmental and social objectives defined by the organization. Thus, it can be concluded that the choice by an organization among the three alternatives here presented will depend on the social-productive context in which it operates; on relationships with its stakeholders and on its organizational maturity level.

Considering that the context of technology-based SMEs have been generated is a university incubator and also the objectives of the present work, we adopted the first alternative as a basis for designing a conceptual generic model to assess incubated technology-based small and medium enterprises (SMEs), considering ‘Social Responsibility’ perspective. It was assumed, in practical terms, that this alternative was the most simple and easy-to-apply and could effectively help incubated technology-based small and medium enterprises (SMEs) to adopt SR guidelines and to embed SR good practices in their operations, products and services.

In regards to social responsibility guidelines for SMEs, the ISO 26000 standard includes a text directly addressed to SMEs (ISO, 2010 - Section 3.3.4 – Box 3). Although it doesn’t intend to establish any specific orientations to SMEs, this text highlights and articulates aspects of the ISO 26000 standard that can facilitate its interpretation and application by these enterprises and also by technology business incubators. As mentioned before, ISO 26000 Standard was conceived for all kinds of organizations, including micro, small and medium enterprises. Although their individual social and environmental impacts are small, the cumulative impacts of SMEs are highly significant, offering the potential for significant progress towards sustainable development if the SR Agenda can be made more relevant and appropriate for SMEs (International Institute for Sustainable Development, 2004). However, in general, it is reinforced in several works that SMEs can be at the margins of the Social Responsibility Agenda. The existing SR discussion, both in terms of the business case and the tools, is often not conducive to the engagement of SMEs (Raynard and Forstater, 2002; International Institute for Sustainable Development, 2004; Luken and Stares, 2005; Vives et al., 2005; Lepoutre and Heene, 2006; and Perera, 2008).

We assumed in this research that technology business incubators can serve as facilitators for the insertion of effective SR practices on the reality of SMEs nurtured by them, reversing the undesirable signals above mentioned. Since technology business incubators adopt management tools for integrating SR practices

in SMEs nurtured by them, they will be effectively fulfilling their role, as catalyzing agents for developing entrepreneurs within SR perspective.

METHODOLOGY

The methodology adopted during the research project encompasses three main phases, as follows: (i) exploratory phase, comprising bibliographical and documentary review on research central themes, and designing of the conceptual framework; (ii) applied research, focusing on the development of a multiple-case study, involving six technology-based SMEs, incubated in Instituto Genesis (PUC-Rio, Brazil); and (iii) the conclusive-reflexive phase.

In addition, for supporting the multiple-case study development the exploratory phase included a particular documentary research concerning business contexts and profiles of the SMEs selected for the multiple-case study. In this phase, a conceptual model was designed as a basis for the applied research phase. It was an innovative model for assessing how technology-based SMEs incubated in a university incubator have implemented SR practices and initiatives according to ISO 26000 framework (ISO, 2010).

In the subsequent phase – applied research – this model was validated empirically by selected enterprises incubated at Instituto Genesis da PUC-Rio, adopting a multiple-case study protocol, as presented by Yin (2005). Based on Yin's typology, we selected a holistic multiple-case study, considering groups of enterprises that are suppliers of products and services for the followings sectors: (i) energy, oil and gas; (ii) telecommunications; and (iii) environmental area.

The development of the multiple-case study comprised six steps, as follows: (i) selection of the type of case study and delimitation of units of analysis; (ii) elaboration and pre-test of the instrument of field research (descriptive material related to the conceptual model in a didactic format for an easy application by the selected SMEs, through semistructured interviews); (iii) data collection by interviews with the directors of six selected SMEs, data treatment and analysis; (iv) presentation and discussion of results; (v) empirical validation of the conceptual model by the directors of SMEs and the incubator managers; and (vi) conclusions of the multiple-case study, including a set of recommendations and suggestions for future works.

CONCEPTUAL MODEL FOR ASSESSING SOCIAL RESPONSIBILITY IN INCUBATED TECHNOLOGY-BASED SMES

The conceptual model aims to assess how incubated technology-based small and medium enterprises (SMEs) can be aware of SR importance for creating value for their business and adopt guidelines posed by ISO 26000 Standard. We decided to adopt the ISO 26000 standard as a reference framework for the inclusion of SR business issues into strategic planning and performance assessment of these SMEs for two reasons: (i) the ISO 26000 standard is guidance for all types of organization, regardless of their size or location; and (ii) it may offer supply chain opportunities to SMEs.

Figure 2 represents the general schema of conceptual model for assessing social responsibility in incubated technology-based SMEs.

According to the general view showed in Figure 2, the conceptual model encompasses a sequence of four modules: (i) Module 1 – 'Definition of business model and value propositions'; (ii) Module 2 – 'Selection of SR issues from ISO 26000 framework'; (iii) Module 3 – 'Prioritization of SR initiatives and practices'; and Module 4 – 'Building the Sustainable Strategic Map for incubated technology-based SMEs'.

MAIN FINDINGS

The conceptual model was empirically validated by six selected SMEs incubated at Instituto Genesis (PUC-Rio, Brazil). By means of a multiple-case study protocol, as presented by Yin (2005), managers from the selected enterprises were interviewed for this case study. The SMEs integrate supply chains of relevant sectors in Brazil, as follows: (i) energy, oil and gas; (ii) telecommunications; and (iii) environmental area. In

this section, we present and discuss the multiple-case study findings, with an attempt to answer the following questions:

- What are the most relevant CSR issues that potentially contribute to value creation for firms in the long-run?;
- What are the core themes and subthemes of CRS related to these issues, within ISO 26000 framework?;
- Which strategic SR objectives, initiatives and business performance indicators should be in respective sustainable strategic maps of the selected incubated enterprises, based on guidelines set out in the ISO 26000 framework?.

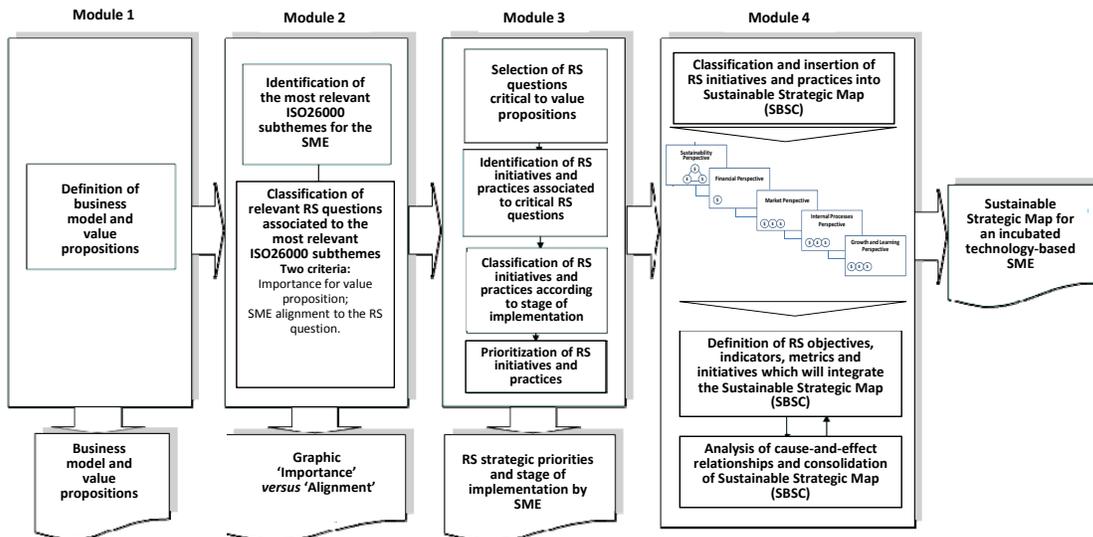


Figure 2: General Representation of Conceptual Model for Assessing SR in Incubated Technology-Based SMEs

Concerning the first question, this multiple-case study allows the identification of CSR issues that most affect strategically the performance of SMEs within SR perspective. Among the SR 345 questions associated to the 36 SR issues that integrate ISO 26000 framework, 45 were considered the most important and strategic for the six incubated technology-based SMEs. From them, 8 questions were indicated as priority by at least 3 SMEs interviewed.

In relation to the second question, the subthemes of CRS related to most important SR Issues for SMEs interviewed are: (i) 'Labor practices', with 16 SR questions considered as priorities; (ii) 'Community involvement and development, with 8 SR questions; (iii) 'Consumer issues', with 7 SR questions; (iv) 'Organizational governance', with 6 SR questions; (v) 'The environment', with 4 SR questions; and (vi) 'Fair operating practices, with 4 SR questions.

The last question refers to CSR strategic goals, initiatives and business performance indicators that should be in respective sustainable strategic maps of the selected incubated enterprises. We came up with a set of 22 CSR strategic goals, 41 initiatives and 57 indicators associated with these initiatives (by computing the common elements only once). From the set of 22 CSR strategic goals, 9 are associated with the 'Learning and Growth' dimension; 11 with the 'Internal Processes' dimension and only two with the 'Market' dimension. These findings indicate a well-balanced distribution between 'Learning and Growth' and 'Internal Processes' dimensions. According to the sustainable BSC rational, it was expected a very few strategic goals and initiatives within the 'Market' dimension. This assumption was confirmed during the interviews.

Focusing on the set of 57 SR indicators directly related to the 41 SR initiatives, 51 are process indicators and only six can be considered outcome indicators. Due to space limitations, the empirical results focusing on the six incubated technology-based SMEs will be not presented in this paper. They were in-depth reported by Jourdan (2011), in her MSc dissertation, and are available for public access and downloading in the following address: <http://www.maxwell.lambda.ele.puc-rio.br>.

CONCLUSIONS

This work aimed to present a new conceptual model to assess social responsibility of incubated technology-based small and medium enterprises (SMEs) aligned to ISO 26000 guidelines. Its applicability was demonstrated by means of a multiple-case study on selected graduated technology-based SMEs which were nurtured in Instituto Genesis (PUC-Rio, Brazil).

It is believed that this model, due to its flexible, dynamic and systemic characteristics, can be useful not only for incubated SMEs, but also for managers of technology-based incubators, and for associations, regional and national networks, within the wide context of business incubators. Managers of SMEs, public managers in general and academic specialists can also take advantage of the knowledge here generated to improve their SR strategies, by adopting in next future ISO 26000 guidelines.

Based on the results here presented, we recommend:

- to apply the conceptual model and support material (templates, graphs etc.) on incubated enterprises in Instituto Genesis (PUC-Rio, Brazil), within the perspective of review its current selection process of candidates and performance assessment of the incubated enterprises;
- to define a national strategy together with the Associação Brasileira de Incubadoras de Empresas e Parques Tecnológicos (Anprotec), Serviço Brasileiro de Apoio a Micro e Pequenas Empresas (Sebrae), Instituto Ethos and Associação Brasileira de Normas Técnicas (ABNT), institutions with potential interest in its application at national level;
- to develop an IT application that allows the diffusion and implementation of this assessment tool to other incubated enterprises (in Brazil and other countries);
- to create a database with the results generated by incubated enterprises from Instituto Genesis, after applying the assessment tool, and utilize non-parametrical statistical analysis for the treatment and analysis of the collected data.

We believe that the conceptual model presented in this work, illustrated by a multiple-case study in Brazil, can contribute to a critical reflection on the ongoing methods used by incubators and incubated firms and, more important, on the real possibilities of applying SR principles and practices within the organizational contexts of university incubators and their incubated technology-based enterprises.

Due to its flexible, dynamic and systemic characteristics, the conceptual model can be useful not only for incubated SMEs, but also for managers of technology-based incubators, and for associations, regional and national networks, within the wide context of business incubators. Managers of SMEs, public managers in general and academic specialists can also take advantage of the knowledge generated during this research to improve their strategies towards sustainable development, by adopting in next future the ISO 26000 guidelines. This is the vision preconized by those who participated in the ISO 26000 standardization process, as follows: “maximization of the contribution of the organization for sustainable development” (ISO, 2010).

REFERENCES

- Bergek, A and C Norrman (2008). Incubator best practice: A framework, *Technovation*, 28, 20-28.
- Bieker, T et al. (2001). Towards a sustainability balanced scorecard linking environmental and social sustainability to business strategy. In *Proceedings of the 2001 Business Strategy and the Environment Conference*. Leeds, U.K.
- Brignall, TJS (2002). *The unbalanced scorecard: a social and environmental critique*. In: Neely A., Walters A. and Austin R. (eds.). *Performance measurement and management: research and action*. Boston: Performance Measurement Association.
- Carroll, A (1991). The pyramid of corporate social responsibility: toward the moral management of organizational stakeholders. *Business Horizons*, 34 (4), 39-48.
- Elkington, J (1998). *Cannibals with forks: the triple bottom line of 21st century business*. Oxford: U.K. Capstone Publishing Limited.

Figge et al. (2002). The sustainability balanced scorecard –linking sustainability management to business strategy. *Business Strategy and the Environment*, 11, 269–284.

Instituto Ethos de Empresas e Responsabilidade Social (2003). *Práticas empresariais de responsabilidade social* [Carmen Weingrill, coord.]. São Paulo: Instituto Ethos. Available at: <<http://www.ethos.org.br/sistemas/ifc/>>. Access: May 10th, 2013.

International Institute for Sustainable Development (2004). *The ISO and corporate social responsibility. Issue briefing note: small and medium-sized enterprises*. Winnipeg: International Institute for Sustainable Development.

International Organization for Standardization (2010). *ISO 26000:2010. Guidance on social responsibility*. Geneva: ISO Publ.

Jenkins, H (2006). Small business champions for corporate social responsibility. *Journal of Business Ethics*, 67 (3), 241-256.

Jourdan, CA (2011). *Normalização e responsabilidade social empresarial em pequenas e médias empresas: estudo de caso de PMEs de base tecnológica em uma incubadora*. MSc. Dissertation. Pontifical Catholic University of Rio de Janeiro. Graduate Programme in Metrology for Quality and Innovation. Available at: <http://www.maxwell.lambda.ele.puc-rio.br/Busca_etds.php?strSecao=resultado&nrSeq=19345@1>. Access: December 10th, 2012.

Kaplan, R S and D P Norton (1996). Using the balanced scorecard as a strategic management system. *Harvard Business Review* (January-February 1996), p. 76.

Lepoutre, J and A Heene (2006). Investigating the impact of firm size on small business social responsibility: a critical review a critical review, *Journal of Business Ethics*, 67 (57), 273 – 273.

Luken, R and R Stares (2005). Small business responsibility in developing countries: a threat or an opportunity? *Business Strategy and the Environment*, 14, 38-53.

Perera, O (2008). *How material is ISO 26000 social responsibility to small and medium-sized enterprises (SMEs)?*. International Institute for Sustainable Development (IISD). Available at: <http://www.iisd.org/pdf/2008/how_material_iso_26000.pdf>. Access: May 10th, 2013.

Raynard, P and M Forstater (2002). *Corporate social responsibility: implications for small and medium enterprises in developing countries*. Viena: Unido.

Serviço Brasileiro de Apoio a Micro e Pequenas Empresas. Sebrae (2008). *Anuário do trabalho na micro e pequena empresa*. Brasília: Sebrae.

Vives, A, A Corral and I Isusi (2005). *Responsibilidad social de la empresa en las PyMEs de Latinoamérica*. Inter-American Development Bank. Available at: <<http://www.ibddocs.iadb.org/wsdocs>>. Access: May 10th, 2013.

Zadek, S (1998). Balancing performance, ethics and accountability. *Journal of Business Ethics*, 17, 1421-1442.

APPROPRIATING THE ECONOMIC RETURNS FROM R&D RESULTS AND TECHNICAL INNOVATIONS IN THE BRAZILIAN ELECTRICITY SECTOR

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ABSTRACT

The objective of this paper is to describe a conceptual model for value appropriation of R&D results and technical innovations implemented by electric power distribution, generation and transmission concessionaires in Brazil, within the perspective of contributing to the advancement of empirical knowledge on this subject. An empirical validation of this model was conducted in one of these concessionaires, namely Light Electric Services, in 2011. Specifically, the study sought to: (i) evaluate the appropriability regime and use of value appropriation mechanisms, focusing on four successful R&D projects carried out by Light Electricity Services; (ii) build business models and alternative scenarios for appropriating the economic returns from the referred R&D projects, (iii) formulate appropriation strategies for each R&D project; and (iv) identify associated problems and inadequacies to determine how best to implement the proposed strategies.

INTRODUCTION

Over the past few years, the electric power distribution, generation and transmission concessionaires in Brazil have made substantial investment in R&D, which has demanded improvements in strategies, processes, organizational structures of these firms. More than just meet the requirements of the National Agency of Electrical Energy (ANEEL), concerning R&D activities, it is expected that concessionaires are able to create new knowledge, to innovate more effectively and adapt to changing environmental conditions more quickly and efficiently (Fernandino and Oliveira, 2010).

From the regulatory perspective, the electric power distribution, generation and transmission concessionaires and permissionaires should apply a minimum percent of their net operating income every year in R&D activities, within the 'Research and Development Program for the Brazilian Electric Power Sector'. The obligatory application of these funds is foreseen by law and in the concession contracts. It is up to the Agency to regulate investment in the Program, evaluate and approve the conditions for carrying out research and following up on its results. ANEEL established guidelines and instructions that regulate the elaboration of R&D projects, through the 'Manual for Research and Development Program for the Brazilian Electric Sector'.

According to ANEEL (2012), the quality of a R&D project can be evaluated by two basic criteria: (i) the nature of products developed in relation to scientific creativity and innovative features; and (ii) its potential market application. The second criterion is closely related to appropriability regimes concerning the knowledge generated and also to methods and mechanisms for economic appropriation of R&D results, which will be discussed here.

In this paper, we assumed that new knowledge and technological solutions generated by projects carried within ANEEL's Research and Development Program should bring economic and social benefits for the electricity sector value chain, as a whole, and for the society, in general, justifying utilization of public funds.

Based on this assumption, this paper aims to describe a conceptual model for value appropriation of the results from R&D projects implemented by electric power distribution, generation and transmission concessionaires in Brazil, within the perspective of contributing to the advancement of empirical knowledge about economic appropriation of R&D results. An empirical validation of this model was conducted in one of these concessionaires, namely Light Electric Services, in 2011.

Specifically, the study sought to: (i) evaluate the appropriability regime and use of value appropriation mechanisms, focusing on four successful R&D projects carried out by Light Electricity Services; (ii) build business models and alternative scenarios for appropriating the economic returns from the referred R&D projects, (iii) formulate appropriation strategies for each R&D project; and (iv) identify associated problems and inadequacies to determine how best to implement the proposed strategies. The research, from which this paper was originated, included: (i) development of theoretical background; (ii) survey and discussion of empirical studies on appropriability of results of R&D at the international level, (iii) conceptual modeling of value appropriation of R&D results, considering an environment of open innovation; and (iv) proposal and demonstration of three operational tools, validated within four R & D projects of Light selected for this purpose.

Firstly, we present the theoretical framework and a very synthetic view of empirical literature on this subject, which were of particular interest for the modeling phase, as already mentioned. Afterwards, we describe the proposed conceptual model for value appropriation of R&D results, detailing three tools that integrate it. Then, we discuss the results of implementing these operational tools in the context of four Light/ANEEL R&D projects, and also the benefits and implications for Light Electrical Services, the universities which collaborate with Light, and also for the Brazilian Regulatory Agency.

THEORETICAL BACKGROUND

The theoretical background encompasses the following themes: (i) R&D value appropriation, appropriability regime and mechanisms; (ii) business modeling for innovation and value appropriation scenarios; and (iii) value appropriation strategies concerning R&D results.

A theoretical framework for analyzing the relation between innovation and appropriability was introduced by Teece in 1986. One year later, Levin et al. (1987) studied how firms used a variety of different appropriability strategies including, but not limited to patents (López, 2009). One of Teece's core contributions was to link the question of who can benefit from innovation to the contractual conditions surrounding the innovation, as well as the nature of the relationships between the innovator and others, vertically related asset holders.

In this paper, we define 'value appropriation' as the individual share of the value that a firm can capture from R&D efforts and generated innovations. In addition, to find ways of creating different innovations (and creating value), firms need to focus on the best strategies to generate new knowledge and also to appropriate the value of their R&D efforts and results. In the case of joint innovation among non-competitors (firms and academic institutions, for instance), both value creation and appropriation may be inherently collaborative and collective. By way of illustration, innovations are typically created jointly, and when they are commercialized (possibly also jointly), the results are allocated in accordance with whatever formal or informal contract is in existence. But even, in these circumstances, firms must identify and use proper appropriability mechanisms to protect both the innovation itself and the increased rents due to R&D.

According to Hurmelinna and Puumalainen (2005), the appropriability regime of a firm has been defined as the extent to which knowledge and innovations can be protected from imitators. It consists of appropriability mechanisms – the means to protect both the innovation itself and the increased returns due to R&D (Cohen et al, 2000; 2001). The mechanisms of appropriability of knowledge are diverse and include patents, trademarks, trade secrets and even the time of development and launch of a new product to market (time-to-market). These mechanisms can be grouped according to their legal or strategic nature. Its effectiveness can be verified, both from the standpoint of preventing copying by competitors (replicability), and by consolidating or improving the company's competitive position in the market, by innovation. From

this perspective, these mechanisms will be used by companies to a greater or lesser degree, depending on various external and internal factors, including innovation model adopted by the company, whether open or closed.

Neoschumpeterian authors, as Dosi, Pavitt and Soete (1990), argue that conditions and methods of appropriability vary markedly across countries, industries and sectors. From this perspective, intellectual property rights (IPRs) are considered one of the main mechanisms of appropriability for new knowledge assets, but once they interact with other mechanisms, their importance should be relativized. The appropriability regime represents a combination of effective available means of intangibles and innovations protection, their profitability, and the R&D increased returns (Hurmelinna-Laukkanen and Puumalainen, 2007).

According to Hurmelinna-Laukkanen and Puumalainen's framework, we define the five main mechanisms of appropriability, as follows (Table 1).

Table 1: Appropriability mechanisms

Mechanism	Description
Nature of knowledge	The nature of knowledge has a major role given the availability of other mechanisms. The more tacit the knowledge is, the more difficult is its replication. It may confer greater protection against copying. However, the same feature can also difficult the transfer of that knowledge, or allow to be lost to competitors. On the other hand, for codified knowledge, a certain amount of disclosure is required in writing an enforceable contract or a patent application. Disclosing information may not be possible if the core knowledge is very tacit in nature, however. Similarly, copyright or model-right protection covers only the expression, not the underlying ideas, and therefore the codified, explicit form is critical in terms of the scope and usefulness of the protection.
Institutional protection	Institutional protection includes legal mechanisms of protection such as patents, design registrations, trademarks and copyrights, trade secrets and confidentiality agreements; beyond labor legislation (next item).
Human resource management	The terms of confidentiality between employers and employees, the clauses for avoid knowledge transfer to competitors, and even strategic human resource retention policies constitute ways to protect knowledge. Labor legislation has been also classified into this category.
Practical and technical means	The practical and technical means are those mechanisms used to protect direct access to knowledge and strategic information such as passwords, encryption systems or areas with restricted access. They are effective in protecting the codified knowledge.
Lead time to market	Lead time to market refers to the length of time it takes from a product being conceived until its being available for sale. Lead time is important in industries where products are outmoded quickly.

Given the linkages between the above mechanisms, the appropriability regime may take different forms. According to Teece (1986), a previously diagnosis of the appropriability regime concerning a given knowledge asset may indicate for the firm if the regime is weak, moderate or strong, according to two criteria: (i) legal protection, and (ii) replicability of knowledge, if tacit or codified.

Depending on this initial diagnosis, different appropriability strategies can be implemented, in order to ensure return on investments made during the development of new products or processes. Teece (1986) points out that, in situations where the protection by intellectual property rights (IPRs) is considered strong, the innovator, even not dominating and controlling complementary assets required, will be in an advantageous position to acquire them. Even in situations when the innovator recognized the need for co-specialization of these assets, mechanisms such as licensing and technical assistance contracts allow the formation of supplier networks. Thus, appropriability mechanisms should be seen under a systemic view: patenting with industrial secrets or licensing, transfer of technology and "know-how" from others in order to enable the economic exploitation of innovation. Appropriability can occur mediated by the intellectual property, without establishing restrictions on the innovation process, and may even promote cooperation between the actors in this process, while maintaining its continuity. On the other hand, when the protection by IPRs is considered weak, the competitive strategies should enable innovators to position themselves in favorable conditions in relation to imitators.

The second part of the theoretical framework refers to the concepts of business model and value appropriation scenarios. There is no inherent value to a technology by itself. Its value is determined by the

business model adopted by the firm to introduce the innovation into market. The same technology brought to market by different business models result in different value appropriations. An inferior technology with a better business model will always be better paid than a top technology with an inferior business model.

Based on Zott and Amit (2010), Osterwalder and Pigneur (2010), Teece (2010), Chesbrough and Rosenbloom (2002), business model can be defined as a conceptual framework that depicts the way a company does business with its customers, partners and vendors. The business model framework outlined in this paper is the generic model proposed by Osterwalder and Pigneur (2010). This framework is composed of a set of nine building blocks that relate to each other and that can be classified among four categories, as follows: infrastructure operation; customer relationship; product or process innovation; and financial aspects.

Chesbrough and Rosenbloom (2002) linked this business model framework to the technology management literature and define it as the “heuristic logic that connects technical potential with the realization of economic value,” emphasizing its role in linking technology to market outcomes. To extract value from an innovation, a start-up (or any new venture firm) needs an appropriate business model. Business models convert new technology to economic value. For some start-ups, familiar business models cannot be applied, so a new model must be devised. Not only is the business model important, in some cases the innovation rests not in the product or service but in the business model itself.

Aligned to this perspective, Casadesus-Masanell and Ricart (2010) stress that one important component of business models are the choices in how the organization operates, such as compensation practices, procurement contracts, location of facilities, or assets employed. Regarding the formation of strategic partnerships for innovation, the phenomenon of globalization has been providing firms to better identify partners with complementary assets anywhere in the world and commercialize their technologies in several markets at the same time.

The third and last part of this theoretical background focuses on value appropriation strategies within the context of the adoption of open innovation model by innovative firms.

Open innovation has been considered by Chesbrough (2003) and its followers as a paradigm that assumes that firms can and should use external ideas as well as internal ideas, and internal and external paths to market, as the firms look to advance their technology.

The boundaries between a firm and its environment have become more permeable and innovations can be easily transferred inward and outward. The central idea behind open innovation is that firms cannot afford to rely entirely on their own research in a world of widely distributed knowledge. Instead, they should buy or license processes or inventions (i.e. patents) from other organizations. In addition, internal inventions which were not being used by the owner should be taken outside the firm (e.g. through licensing, joint ventures or spin-offs).

According to Chesbrough (2003), a firm can capture value from an innovation in the following three ways: (i) using the technology in its existing business; (ii) licensing the technology to other firms; and (iii) launching a new venture that uses the technology.

METHODOLOGY

We adopted a methodology based on an action-research approach, due to the nature of the socio-technical problem and the variety of knowledge and skills involved (multidisciplinary). The research methodology comprises: (i) bibliographical and documental review on central themes, namely, appropriability regimes; value appropriation of R&D results; and open innovation; (ii) survey of the empirical literature on the use of appropriability strategies, including the determinants of the propensity to patent, with a view to highlighting the main findings for the modeling phase of the action-research; (iii) design of a conceptual model aiming at effective value appropriation of R&D results, considering an environment of open innovation; and (iv) proposal and demonstration of three operational tools, validated within the context of four Light/ANEEL R&D projects.

As mentioned before, the research method used to guide the conceptual modeling phase was action-research that is an interventionist approach to the acquisition of scientific knowledge (Baskerville and Wood-Harper, 1996).

Action research can also be considered as a kind of transformative methodology (Gobo, 2008), meaning a way of interfering with the state of the object. Thus, an important aspect of the conceptual model

was the participation of those who directly or indirectly contributed to the generation, application and exploitation of knowledge coming from the selected R&D projects. This means that this research also reached Light partners (universities, enterprises and S&T institutions) that have been involved in the development of the four selected R&D projects. This aspect was particularly important during the demonstration phase of the operational tools for effective R&D value appropriation.

CONCEPTUAL MODEL FOR LIGHT ELECTRICITY SERVICES (LIGHT)

Figure 2 represents the conceptual model proposed for Light concerning R&D value appropriation.

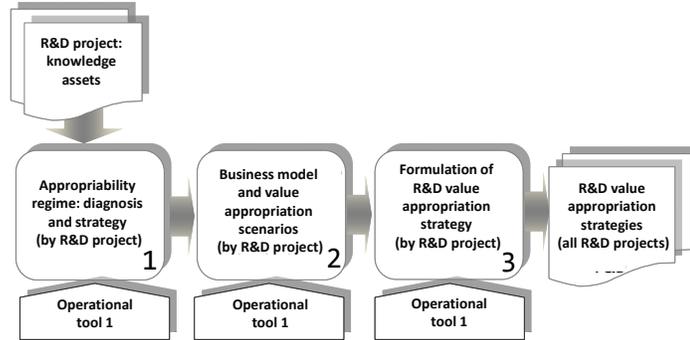


Figure 2: Conceptual Model proposed for Light: R&D Value Appropriation

As the conceptual basis for the proposition of these tools has already been addressed in this paper, we present for each operational tool: (i) their objectives; (ii) schematic representation; and (iii) support questions for their application. Thus, the “Operational tool 1” has the following objectives: (i) to evaluate the appropriability regime and the corporative use of protection mechanisms regarding knowledge assets generated by the selected R&D projects; and (ii) to establish the best appropriability strategy for each R&D project (on a case-by-case basis).

Figure 3 shows schematically the sub modules of the ‘Operational tool 1’ and their interrelationships.

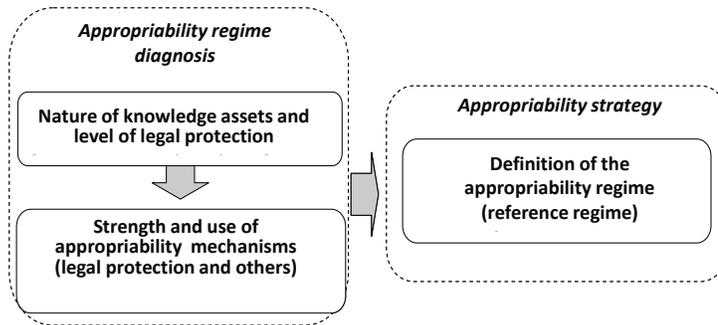


Figure 3: Schematic Representation of ‘Operational Tool 1’

Regarding the 'Operational tool 2', its objectives are: (i) to design the innovation business model, according to the concepts described in previous section; (ii) to generate alternative value appropriation scenarios under the open innovation framework; and (iii) to establish the reference scenario for better defining the value appropriation strategies for Light (on a case-by-case basis).

Figure 4 shows schematically the modules 'Operational Tool 2', their interrelationships and connections with the results obtained from the application of the 'Operational Tool 1'.

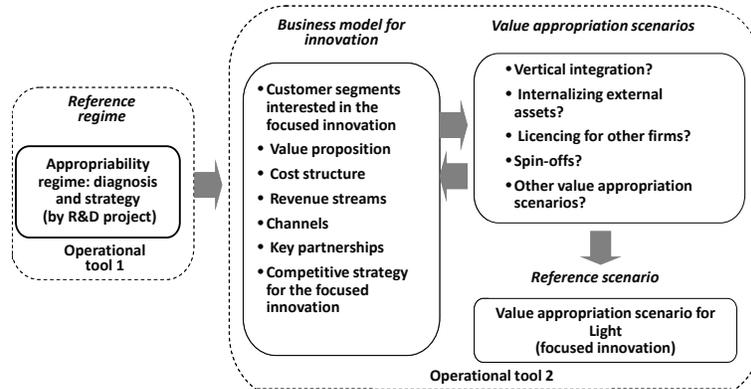


Figure 4: Schematic Representation of ‘Operational Tool 2’

Finally, the third tool refers to the formulation of R&D value appropriation strategies and analysis of critical success factors regarding implementation phase.

Figure 5 shows a schematic representation 'operating tool 3', its components and their interrelationships and connections with the results generated by previous tools application.

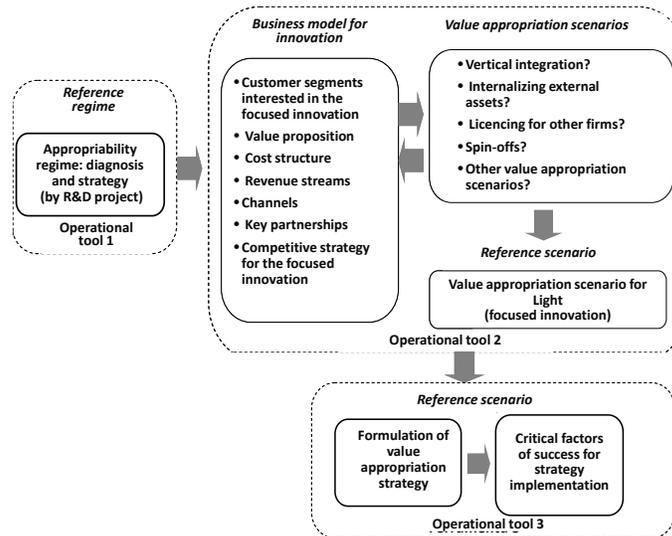


Figure 5: Schematic representation of ‘Operational Tool 3’ integrated to previous tools

MAIN FINDINGS

The model shown in Figure 2 was validated in the context of the four R&D projects, selected according to the following criteria: (i) stage in the innovation chain: R&D successfully completed. Final stages of the innovation chain; (ii) alignment to the ANEEL’s strategic themes and research lines of Light: strong aligned; and (iii) potential market entry: high potential.

Among the Light/ANEEL R&D projects eligible for demonstrating the effectiveness of operational tools proposed, we selected the most promising projects from the perspective of time-to-market of innovations. During the validation stage, two workshops were organized by Light with support of PUC-Rio, bringing together effectively a group of about 20 participants, including Light managers directly involved in the selected R&D projects; and experts from the areas of R&D, Planning and IT of the company. Engineers from external institutions participating in these projects and a representative of the Patent Office that provides support to Light in this area also participated in the two workshops.

During the first workshop, two operational tools were proposed and validated: (i) diagnosis of the appropriability regime and formulation of appropriability strategy for each selected R&D project

(‘Operational tool 1’); and (ii) design of innovation business model and value appropriation scenarios, according to the respective open innovation contexts of selected R&D projects (‘Operational tool 2’).

In the second workshop, it was discussed and validated a tool for formulating value appropriation strategies (VAS) regarding all selected R&D projects (‘Operational tool 3’).

Finally, in the conclusive phase of this research, we formulated recommendations for improving the current Light/ANEEL R&D management process, focusing on issues of appropriability regime and economic value appropriation of knowledge assets generated by its R&D projects.

Regarding the main bottlenecks and challenges concerning value appropriation of R&D results (identified by action-research method during workshops and interviews with Light R&D managers), we pointed out critical success factors around five dimensions of analysis: (i) Light organizational culture for value appropriation of knowledge assets (particularly, R&D results); (ii) use of practices and tools of competitive and technological intelligence; (iii) effective management of intellectual property portfolio; (iv) knowledge management and information systems; and (vii) contracting, licensing and intellectual property issues.

CONCLUSIONS

This research contributed to the advancement of empirical knowledge about appropriability regimes and value appropriation of R&D efforts and results (knowledge assets). Through the validation by managers and experts involved in four Light/ANEEL R&D projects, it was possible to evaluate – in practice – a conceptual model for better appropriation of economic value of these knowledge. With support of three operational tools created especially for Light and ANEEL purposes, the appropriability regime and the use of mechanisms for protecting knowledge assets were assessed, focusing on the mentioned R&D projects.

Concerned with the strength of appropriability regimes – analyzed on a case-by-case basis – it can be concluded that the use, by Light, of legal protection mechanisms may represent a guarantee of exclusive exploitation of new knowledge. However, the economic returns of R&D may be related not only to legal protection of knowledge asset, but also with other strategies that may favor the capture of its value. This can be confirmed by the results of the application of ‘Operational tool 1’ in the context of the four R&D projects.

As mentioned before, the evaluation of different value appropriation strategies necessarily involves the definition of the innovation business model (potential innovation derived from R&D efforts and results). In the cases we analyzed, it was possible to define the respective innovation business models and value appropriation scenarios, using the graphical schema of open innovation funnel (Figures 4 and 9). Therefore, the ‘Operational tool 2’ was validated by Light. After application of ‘operational tool 3’, the best value appropriate strategies regarding the four Light/ANEEL R&D projects could be revealed. Additionally, the main bottlenecks and challenges concerning value appropriation of R&D results could be identified by action-research method during workshops and interviews with Light R&D managers). It was possible to point out critical success factors around five dimensions of analysis: (i) Light organizational culture for value appropriation of knowledge assets (particularly, R&D results); (ii) use of practices and tools of competitive and technological intelligence; (iii) effective management of intellectual property portfolio; (iv) knowledge management and information systems; and (vii) contracting, licensing and intellectual property issues.

The empirical results obtained from the research that originated this paper validated advanced tools for assessing appropriability regime and formulating value appropriation strategies, within the context of open innovation. Albeit limited to four R&D projects, it is believed that the use of such tools can help Light and other concessionaires to define the best strategies of value appropriation of knowledge assets, especially for future projects.

REFERENCES

Agência Nacional de Energia Elétrica. ANEEL (2012). *Manual do programa de pesquisa e desenvolvimento do setor de energia elétrica*. Agência Nacional de Energia Elétrica. Brasília: ANEEL.

Casadesus-Masanell, R and JE Ricart (2010). From strategy to business models and onto tactics. *Long Range Planning*, 43 (2010) 195 – 215.

Chesbrough, HW (2003). *Open innovation: the new imperative for creating and profiting from technology*. Boston: Harvard Business School Press.

Chesbrough, HW and RS Rosenbloom (2002). The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spinoff companies. *Industrial and Corporate Change*, 11, 533-534.

Cohen, W, A Goto, A Nagata, R Nelson, and J Walsh (2001). *R&D spillovers and the incentives to innovate in Japan and the United States*, Working Paper.

Cohen, W, R Nelson and J Walsh (2000). *Protecting their intellectual assets: appropriability conditions and why us manufacturing firms patent (or not)*. Working Paper, 7552, National Bureau of Economic Research, Cambridge.

Dosi, G, K Pavitt and L Soete (1990). *The economics of technical change and international trade*. New York University Press. Washington Square, New York.

Fernandino, JA and JL Oliveira (2010). Arquiteturas organizacionais para a área de P&D em empresas do setor elétrico brasileiro. *RAC*, 14 (6), 1073-1093.

Hurmelinna-Laukkanen, P and K Puumalainen (2005). *The dynamics of appropriability regimes*. In Proc. The DRUID Tenth Anniversary Summer Conference, Copenhagen.

Hurmelinna-Laukkanen, P and K Puumalainen (2007). Nature and dynamics of appropriability: strategies for appropriating returns on innovation. *R&D Management*, 37 (2), 95-112.

Levin, RC, AK Klevorick, RR Nelson, SG Winter, R Gilbert and Z Griliches (1987). *Appropriating the returns from industrial research and development*. Brookings Papers on Economic Activity, 1987 (3), Special Issue on Microeconomics, 783-831.

López, A (2009) Innovation and appropriability, empirical evidence and research agenda. Chapter 1. In: *The economics of intellectual property: suggestions for further research in developing countries and countries with economies in transition*. World Intellectual Property Organization. Available at: <<http://www.wipo.int/ip-development/en/economics/pdf>>. Access: April 10th, 2013.

Osterwalder, A and Y Pigneur (2010). *Business model generation*. Handbook for visionaries, game changers, and challengers. Hoboken, New Jersey: Wiley.

Teece, DJ (1986). Profiting from technological innovation. *Research Policy*, 15 (6), 285-305.

Teece, DJ (2010). Business models, business strategy and innovation. *Long Range Planning*, 43, 172-194.

Zott, C and R Amit (2010). Designing your future business model: an activity system perspective. *Long Range Planning*, 43, 216-226.

PRODUCT INVOLVEMENT AND ONLINE WORD-OF-MOUTH IN THE SOUTH AFRICAN FAST FOOD INDUSTRY

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ABSTRACT

Word-of-mouth (WOM) impacts on satisfaction, loyalty and profitability, while the level of product involvement influences the extent to which consumers engage in WOM. The Internet furthermore allows for the rapid diffusion of WOM. This study investigates product involvement and online WOM in the South African fast food restaurant industry. Data was collected through questionnaires distributed through convenience sampling (n = 264). Results indicate respondents exhibit high levels of product involvement and spread positive WOM to others about their favourite fast food restaurant, but they do not tend to engage in online WOM. Positive correlations exist between product involvement and WOM.

INTRODUCTION

WOM is seen as one of the most effective and credible marketing tools a marketer can use to influence consumer attitude, perception and their purchasing behaviour (Yang, Hu, Winer, Assael & Chen, 2012, p. 952). According to Berger and Schwartz (2011, p. 870) this is especially true in the fast food restaurant industry - the focus of this study. It has been established that consumers exhibit different levels of product involvement depending on the product or service involved. Those who exhibit high levels of product involvement seek continuous information, have high levels of experience and interest in the product, and have the ability to influence other consumers' purchasing behaviour (Wu & Wang, 2011, p. 449). According to Riegner (2007, p. 443), consumers' levels of product involvement influence their levels of word-of-mouth (WOM) engagement. Xue and Zhou (2011, p. 45) explain that due to the increased use of social networking sites on the Internet, increased opportunities for expanding WOM communications through an online forum exist, especially on a global platform. This has led to consumers to share more experiences and opinions based on their purchasing behaviour and engaging in online WOM (Chen, 2011, p. 1). Marketers therefore cannot ignore the role of the Internet in spreading WOM. This study focuses on investigating product involvement, WOM and online WOM. It determines the relationship between these constructs in the fast food restaurant industry of South Africa. The paper provides insight into the industry concerned and reviews the constructs and the relationships between them. After the research methodology and results have been discussed, managerial implications and recommendations are presented.

LITERATURE REVIEW

South Africa's food and beverage industry (which includes the fast food and restaurant sectors) has seen increased sales in the last five years with a 9% increase from 2011 to 2012 (Statistics South Africa, 2012, p. 2, Ntloedibe, 2011). Maumbe (2012, p. 149-150) adds that fast food outlets contributed 30% and employed 24.1% people in the industry. Despite economic woes, the demand for fast food has increased with 25.3 million people purchasing fast food at least once a month (Vallie, 2012). The fast food and restaurant sectors in South Africa can attribute this growth to its adaptation to new market trends (such as healthier food options), technological innovations, demographic changes and increased levels of food safety (Maumbe, 2012, p. 147).

According to Samson (2010, p. 61) "product involvement is the degree of interest of a consumer in a product category on an on-going basis". Xue and Zhou (2011, p. 8) add that it is based on the relevance that a product or service has in consumers' minds based on their needs and interests. Wu and Wang (2011,

p. 449) explain that consumers can experience either high (e.g. risky purchase) or low levels (e.g. low-risk purchase) of product involvement. Consumers who exhibit high levels of product involvement, seek continuous information on the product and have high levels of experience and interest in the product, and will easily influence other consumers' purchasing behaviour (Wu & Wang, 2011, p. 449). Xue and Zhou (2011, p. 52) explain that consumers' level of product involvement will be influenced by WOM communications spread by others. Riegner (2007, p. 443) supports this by stating that WOM will influence consumers who have higher levels of product involvement (such as in the purchase of technology), but is less likely to influence purchases of low involvement products (such as apparel).

According to Ahmad (2012), "WOM may be defined as an informal type of communication between private parties concerning the evaluation of goods and services" (p. 104). WOM includes any form of communication such as, face-to-face, phone or email, and can be expressed as either positive or negative (Xue & Zhou, 2011, p. 47, Goyette, Ricard, Bergeron & Marticotte, 2010, p. 8). WOM is seen as being one of the most effective marketing tools when influencing consumers and their purchasing behaviour (Yang *et al.*, 2012:952) where at least 70% of consumers' purchasing decisions (especially in industries such as food and beverage, banking and technology) are influenced by WOM (Berger & Schwartz, 2011:870). Chen, Wang and Xie (2011, p. 239-240) explain that WOM is characterised by two dimensions, namely intensity and valence. These authors clarify that WOM intensity refers to the volume of messages expressed by consumers (i.e. how often and the amount of information expressed). WOM valence refers to the type of message expressed (i.e. whether the message is positive or negative). WOM intensity and valence are influenced by the type of product as well as the type of consumer – such as a consumer's personality, social class and culture – and will influence other consumers' attention to messages and their purchase behaviour (Nekmat & Gower, 2012, p. 88, Lam, Lee & Mizerksi, 2009, p. 56).

Xue and Zhou (2011, p. 45) explain that due to the increase of people using social networking sites on the Internet, the opportunities for expanding WOM communications through an online forum have increased, especially on a global platform. Chen (2011, p. 2) defines online WOM as when consumers or potential consumers research a product or service online, and then share their experiences and opinions about the products and services with others through an online platform. According to Nekmat and Gower (2012, p. 85), online WOM is influenced more greatly by WOM valence and intensity than traditional WOM. This is since online WOM is more permanent in nature, can easily be spread by other online users, and can reach a large number of consumers at once, although online WOM could be seen as less credible if the reader does not know the source (Wu & Wang, 2011, p. 449). As with traditional WOM, online WOM has also been found to have an influence on customer loyalty and satisfaction (Wu & Wang, 2011, p. 448).

PROBLEM STATEMENT, OBJECTIVES AND HYPOTHESES

Berger and Schwartz (2011, p. 870) explain that the food and beverage industry is influenced by WOM messages spread by other consumers. Chen *et al.* (2011, p. 240) state that WOM intensity and valence play an important role as they enable product information to be entered into the market place and can increase the level of consumer awareness. Trusov, Bucklin and Pauwels (2009, p. 90) mention that understanding WOM is becoming more important due to the changes in consumers' behaviour and the influence of social media. The authors reiterate that traditional methods of communication are losing their effectiveness placing more pressure on understanding the influence of online WOM through social media. The need for researching online WOM in cultures outside the US and other Western cultures has become vital due to the lack of studies in other cultures except Western cultures (Xue & Zhou, 2011, p. 46). From the information presented above, the importance of researching product involvement and online WOM cannot be disputed, especially in the food and beverage industry and in South Africa due to its variety of cultures. Additionally, the authors are unaware of such a study having been undertaken from a South African perspective. The primary objective of this study is therefore to investigate the relationship between product involvement and online WOM in the fast food industry of South Africa.

Based on the primary objective stated previously, the following secondary objectives have been formulated for this study:

- Develop a demographic profile of respondents taking part in the study.
- Determine the fast food restaurant and online patronage habits of respondents.
- Determine the level of product involvement respondents exhibit towards fast food restaurants.
- Determine the extent of WOM generated by respondents with respect to the fast food restaurants.

- To measure how online WOM is spread with respect to fast food restaurants.

The following hypotheses have been formulated for the study:

- H1_a: Respondents exhibiting different demographic characteristics (gender, race and age) differ significantly in the level of product involvement they exhibit towards fast food restaurants.
- H2_a: Respondents exhibiting different fast food restaurant patronage habits (length of time and patronage frequency) differ significantly in the level of product involvement they exhibit towards fast food restaurants.
- H3_a: Respondents exhibiting different demographic characteristics (gender, race and age) differ significantly in the extent of WOM they generate with respect to the fast food restaurant they buy from.
- H4_a: Respondents exhibiting different fast food restaurant patronage habits (length of time and patronage frequency) differ significantly in the extent of WOM they generate with respect to the fast food restaurant they buy from.
- H5_a: There is a significant and positive correlation between the level of product involvement respondents exhibit towards fast food restaurants and the extent (intensity and valence) to which they generate WOM in the fast food restaurant industry.
- H6_a: There are significant and positive correlations between the level of product involvement respondents exhibit towards fast food restaurants and how they spread online WOM, Table 7 provides the results.

RESEARCH METHODOLOGY

The research design followed in this study is descriptive and quantitative in nature. The target population of the study included people 50 years and younger, who reside in the Gauteng Province of South Africa, who have patronised a fast food restaurant during the six months prior to the study being conducted, and those who go online to send messages, share content, thoughts and opinions. Convenience sampling was used to select respondents and a paper-based self-administered questionnaire was designed to collect data from respondents. Section A gathered information regarding respondents demographic as well as fast food restaurant and online patronage habits. Section B included multi-item scales measuring the level of product involvement as well as the extent of WOM (intensity and valence) with respect to the fast food restaurant respondents purchased from. Finally, another scale measured how respondents spread online WOM. The measurement scales measuring the extent of WOM (intensity and valence) were adapted from the work of Goyette *et al.* (2010, p. 12). The measurement scale measuring product involvement was adopted from the work of Wu and Wang (2011, p. 471). The items measuring how online WOM is spread were adapted from the work of Riegner (2007, p. 446). The researchers ensured face validity before including these items in the questionnaire. The internal consistency reliability of the measurement scales was assessed by calculating Cronbach's alpha coefficients. The four measurement scales realised Cronbach's alpha coefficients between 0.849 and 0.932, which indicate that the scales are reliable and an overall mean score could be calculated for each (Pallant, 2010, p. 6).

Trained fieldworkers fielded the questionnaires. The completed questionnaires were checked for completeness, consistency of answers and whether they were free of interviewer cheating. Data obtained from the questionnaires was analysed using SPSS version 20. The researchers relied on a confidence level of 95% and subsequent significance level of 5% (p -value = 0.05) when testing hypotheses. The independent sample t -test or the Mann-Whitney U test was used to compare the means of two groups where appropriate (Pallant, 2010, p. 214). The one-way Anova or the Kruskal-Wallis test was used to compare the means of more than two groups where appropriate (Pallant, 2010, p. 214). The Pearson product moment correlation determined whether significant relationships exist between the normally distributed continuous variables. The correlation coefficient (r) indicates the direction and strength of the correlation.

RESULTS

In terms of the demographic profile of respondents it was observed that the majority of respondents are female (55.3%), white (57%) followed by African (21.0%) and between the ages of 18 to 25 years (41.8%). In terms of the fast food restaurant and online patronage habits of respondents most respondents indicated Nando's (21.9%) as their favourite fast food restaurant followed by KFC (20.7%) and McDonald's (17.6%). Just over a quarter of the respondents (25.5%) have been supporting their favourite fast food restaurant for 3 years or longer but less than 5 years, followed by those who have been supporting their favourite fast food

restaurant for longer than 10 years (22.1%). The majority of respondents buy from their favourite fast food restaurant at least once a month (29.9%), followed by those buying from their favourite fast food restaurant at least once every two weeks (27.3%). Most respondents access the internet through their cellphone (39.2%), followed by those using a notebook or laptop computer (17.7%).

Table 1 presents the standard deviation and mean for each item measuring respondents' level of product involvement on a seven-point semantic differential scale. The Table also provides an overall mean score for respondents' level of product involvement with fast food restaurants. It can be seen from Table 1 that respondents rated their level of product involvement when it comes to fast food restaurants fairly high (mean = 4.47). Respondents assigned the most positive ratings to fast food restaurants being needed (mean = 4.80), relevant (mean = 4.69) and valuable (4.51). The lowest ratings were assigned to fast food restaurant being involving (mean = 4.08) and fast food restaurants being fascinating (mean = 4.18).

Table 1: Respondents' level of product involvement

Item	SD	Mean
Unimportant; important	1.640	4.48
Boring; interesting	1.442	4.43
Irrelevant; relevant	1.477	4.69
Unexciting; exciting	1.484	4.45
Means nothing to me; means a lot to me	1.536	4.24
Unappealing; appealing	1.467	4.84
Dull; fascinating	1.389	4.18
Worthless; valuable	1.430	4.51
Uninvolving; involving	1.577	4.08
Not needed; needed	1.708	4.80
Overall mean score	1.137	4.47

Table 2 indicates the level of agreement respondents expressed with respect to items measuring the extent of their WOM (intensity and valence) towards their current fast food restaurant on a scale where 1 = 'strongly disagree' and 5 is 'strongly agree'. The standard deviation and mean for each item as well as the overall mean score for the scale are reported. It is evident from Table 3 that items measuring WOM intensity obtained means above the mid-point of the scale of 2.50 with 'I speak of my brand of fast food restaurant much more frequently than about any other brand of fast food restaurant' realising a mean of 2.98. 'I speak of my brand of fast food restaurant much more frequently than about brands of any other type', and 'I speak of my brand of fast food restaurant to many individuals' both realised a mean of 2.59, just above the mid-point of the scale. The overall mean score for WOM intensity is therefore also above the mid-point of the scale (mean = 2.72). With respect to WOM valence, all items realised a mean above 3.00 with the item 'I mostly say positive things to others' realising the highest mean of 3.31, followed by 'I speak favourably of my brand of fast food restaurant to others' (mean = 3.29). The item 'I speak of the good side of my brand of fast food restaurant' (mean = 3.15) realised the lowest mean which is, however, well above the midpoint of the scale. A paired samples t-test confirms that the overall mean score for WOM valence (mean = 3.23) is significantly higher than the overall mean score for WOM intensity (mean = 2.72). An overall mean score for the extent of WOM of 3.06 has been realised.

Table 2: Respondents' extent of WOM

Item	SD	Mean
WOM intensity		
I speak of my brand of fast food restaurant much more frequently than about any other brand of fast food restaurant.	1.122	2.98
I speak of my brand of fast food restaurant much more frequently than about brands of any other type.	1.119	2.59
I speak of my brand of fast food restaurant to many individuals.	1.091	2.59
Overall mean score	0.974	2.72
WOM valence		
I recommended my brand of fast food restaurant.	1.162	3.20
I speak of the good side of my brand of fast food restaurant.	1.064	3.15
I am proud to say to others that I am a customer of this fast food restaurant brand.	1.168	3.20
I strongly recommend people buy products from my brand of fast food restaurant.	1.163	3.20

I mostly say positive things to others.	1.052	3.31
I speak favourably of my brand of fast food restaurant to others.	1.091	3.29
Overall mean score	0.962	3.23
Overall mean score for extent of WOM (intensity and valence)	0.888	3.06

Table 3 presents the standard deviation and mean for each item measuring how online WOM is spread by respondents regarding fast food restaurants. Each item is measured on a scale where 1 is 'never' and 5 = 'always'. From Table 3 it can be seen that all items realised means well below the mid-point of the scale of 2.50 with 'I talk to friends online about fast food restaurants' (mean = 1.91) obtaining the highest mean, and 'I write reviews/stories or rate fast food restaurants online' (mean = 1.52) the lowest mean.

Table 3: How respondents spread WOM online

Item	SD	Mean
I talk to friends online about fast food restaurants.	1.118	1.91
I send/forward emails about fast food restaurants.	1.117	1.79
I talk about fast food restaurants in a chat room/forum.	0.920	1.54
I meet other people online who like fast food restaurants.	0.934	1.56
I write about fast food restaurants on a personal page, blog or website.	0.973	1.57
I write reviews/stories or rate fast food restaurants online.	0.913	1.52
I post messages on Facebook/MySpace/Twitter about fast food restaurants.	1.132	1.85
I share content related to fast food restaurants online.	1.043	1.74

With regard to H1_a that respondents exhibiting different demographic characteristics (gender, race and age) differ significantly in the level of product involvement they exhibit towards fast food restaurants, the independent sample t-test indicate that blacks and whites differ significantly in the level of product involvement they exhibit towards fast food restaurants (p-value = 0.000). Blacks (mean = 4.89) exhibit significantly higher levels of product involvement than whites (mean = 4.18). H1_a can therefore only be supported in terms of race, since blacks exhibit significantly higher levels of product involvement than whites towards fast food restaurants.

With regard to H2_a that respondents exhibiting different fast food restaurant patronage habits (length of time and patronage frequency) differ significantly in the level of product involvement they exhibit towards fast food restaurants, the following findings were made:

- The results of the Mann-Whitney U test indicate that groups of respondents who have been supporting their favourite fast food restaurant for different lengths of time differ significantly in the level of product involvement they exhibit towards fast food restaurants (p-value = 0.047). Those supporting their favourite fast food restaurant for 3 years or longer (mean rank = 132.90) exhibit significantly higher levels of product involvement than those supporting their favourite fast food restaurant for less than 3 years (mean rank = 113.46).
- The results of the Mann-Whitney U test indicate that groups of respondents who buy from their favourite fast food restaurant at different frequencies differ significantly in the level of product involvement they exhibit towards fast food restaurants (p-value = 0.001). Those who buy once a week or more (mean rank = 150.51) exhibit significantly higher levels of product involvement than those buying less than once a week (mean rank = 117.46).

H2_a can therefore be supported. Those supporting their favourite fast food restaurant for 3 years or longer and those who buy once a week or more from their favourite fast food restaurant exhibit significantly higher levels of product involvement.

H3_a (respondents exhibiting different demographic characteristics (gender, race and age) differ significantly in the extent of WOM they generate with respect to the fast food restaurant they buy from), tested through an independent samples t-test indicate that blacks (mean = 2.90) exhibit significantly higher WOM intensity than whites (mean 2.58; p-value = 0.008). H3_a can therefore only be supported in terms of race, since blacks exhibit significantly higher levels of WOM intensity than whites towards fast food restaurants they buy from.

With regard to H4_a that respondents exhibiting different fast food restaurant patronage habits (length of time and patronage frequency) differ significantly in the extent of WOM they generate with respect to the

fast food restaurant they buy from results of the Mann-Whitney U test indicate that those who buy once a week or more (mean rank = 157.56), however, exhibit significantly higher levels of WOM intensity than those buying less than once a week (mean rank = 121.05; p -value = 0.000). H_{4a} can therefore only be supported in terms of those who buy once a week or more who exhibit significantly higher levels of WOM intensity than those buying less than once a week.

H_{5a} (there is a significant and positive correlation between the level of product involvement respondents exhibit towards fast food restaurants and the extent (intensity and valence) to which they generate WOM in the fast food restaurant industry), the Pearson product moment correlation indicates a significant and positive (p -value = 0.000 and $r = 0.508$) correlation with a large effect between the level of product involvement respondents exhibit towards fast food restaurants and the extent (intensity and valence) to which they generate WOM in the fast food restaurant industry. H_{5a} can therefore be supported. There is a large significant and positive correlation between the level of product involvement respondents exhibit towards fast food restaurants and the extent (intensity and valence) to which they generate WOM in the fast food restaurant industry.

With regard to H_{6a} that there are significant and positive correlations between the level of product involvement respondents exhibit towards fast food restaurants and how they spread online WOM, it was observed that there are significant and positive correlations between all items measuring how WOM is spread (online WOM) and the level of product involvement. Only two items exhibit a medium effect namely, 'I talk to friends online about fast food restaurants' ($r = 0.359$) and 'I share content related to fast food restaurants online' ($r = 0.316$) while the other items had small effects. H_{6a} can therefore be supported.

MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS

The results indicate that the majority of respondents access the Internet through their cellphone. This makes a mobile site and developing relevant mobile application indispensable for marketers who wish to increase traffic to the site and subsequently encourage product involvement. The results of the study indicate furthermore that respondents exhibit fairly high levels of product involvement pertaining to the fast food restaurant they patronise most frequently. Respondents indicated that they view fast food restaurants as something that is needed, relevant and valuable. In order to increase product involvement, marketers of fast food restaurants could capitalise on these sentiments of their customers. Black respondents also exhibit significantly higher levels of product involvement than white respondents. Those respondents who have been patronising the fast food restaurant for three years or longer and purchase from the fast food restaurant once a week or more, exhibit higher levels of product involvement. These findings can guide marketers in identifying those groups of customers who tend to be significantly more involved with their products than others.

It was furthermore found that respondents spread WOM about their favourite fast food restaurants. The results indicate significantly higher levels of WOM valence than WOM intensity. Respondents are thus positive about their favourite fast food restaurant, but not equally willing to speak about it. Marketers of fast food restaurants therefore have to work on strategies to encourage their customers to voice the positive feelings they have towards the particular fast food restaurant. Black respondents exhibited significantly higher levels of WOM intensity than white respondents. Marketers can capitalise on the sentiments of their black customers to convert a large untapped segment of the market. In addition, research should be undertaken to uncover the significantly lower levels of WOM intensity amongst white customers. The challenge is, however, to get customers to voice their positivity (WOM intensity) to the same extent that they experience it (WOM valence). From the results it is evident that those who patronise fast food restaurants once a week or more, exhibited higher levels of WOM intensity than those who patronise the fast food restaurant less than once a week. It is thus evident that regular customers are more willing to spread positive WOM.

With respect to the levels of online WOM respondents participate in the following was found: The study showed that respondents do not really engage in online WOM. Of those respondents that do engage in online WOM, they mainly do so by posting messages about their fast food restaurant on a social networking site such as Facebook or mySpace. This could be attributed to cultural aspects, where South Africans are known to engage in higher levels of traditional WOM (i.e. talking directly to friends and family) than online WOM. As most online WOM messages are spread via a social networking site, fast food restaurants need to

ensure that they are active on social networking sites (i.e. have their own Facebook page which consumers can “friend”) and create opportunities for consumers to “like” the restaurant or send a link to others.

Overall, it was found that significant and positive correlations exist between the level of product involvement respondents exhibit towards fast food restaurants and the characteristics of WOM (namely intensity and valence) as well as online WOM. This suggests that fast food restaurants should aim to increase the level of product involvement consumers have towards the brand and service in order to increase the intensity and valence of the WOM spread about the fast food restaurant. This once again could be done by engaging with consumers about the products and services they require from the fast food restaurant and perhaps allow consumers the ability to customise their own fast food meal to increase the level of product involvement. By engaging with consumers on social media, fast food restaurants could increase the level of product involvement and encourage the spreading of WOM both in the traditional sense and online.

CONCLUSION

Researching the relationship between product involvement, WOM intensity and valence and online WOM is necessary for organisations aiming to increase the levels of customer satisfaction and loyalty. This is also true for South Africa with its numerous cultures, and especially in the fast food industry which is dealing with changing consumer demands and tighter budgets. The results of the study confirm previous studies that the level of product involvement influences WOM intensity and valence. From the results it was found that from a South African perspective, culture influences the level of product involvement and that respondents do not really engage in online WOM. This indicates that traditional WOM is still prevalent in this market.

REFERENCES

- Ahmad, A.M.K. (2012). Attractiveness factors influencing shoppers' satisfaction, loyalty, and word of mouth: an empirical investigation of Saudi-Arabia shopping malls. *International Journal of Business Administration*, 3 (6): 101-112.
- Berger, J. & Schwartz, E.M. (2011). What drives immediate and ongoing word of mouth? *Journal of Marketing Research*, XLVIII: 869-880.
- Chen, S. (2011). Understanding the effects of technology readiness, satisfaction and electronic word-of-mouth on loyalty in 3C products. *Australian Journal of Business and Management Research*, 1 (3): 1-9.
- Chen, Y., Wang, Q. & Xie, J. (2011). Online social interactions: a natural experiment on word of mouth versus observational learning. *Journal of Marketing Research*, XLVIII: 238-254.
- Goyette, I., Ricard, L., Bergeron, J. & Marticotte, F. (2010). e-Word-of-mouth scale: word-of-mouth measurement scale for e-services context. *Canadian Journal of Administrative Sciences*, 27: 5-23.
- Lam, D., Lee, A. & Mizerski, R. (2009). The effects of cultural values in word-of-mouth communication. *Journal of International Marketing*, 17 (3): 55-70.
- Maumbe, B. (2012). The rise of South Africa's quick service restaurant industry. *Journal of Agribusiness in Developing and Emerging Economies*, 2 (2): 147-166.
- Nekmat, E. & Gower, K.K. (2012). Effects of disclosure and message valence in online word-of-mouth (eWOM) communication: Implications for integrated marketing communication. *International Journal of Integrated Marketing Communications*, Spring: 85-98.
- Ntloedibe, M. (2011). GAIN Report: South Africa Retail Foods 2010 Annual Retail Food Sector report. USDA Foreign Agricultural Service.
- Pallant, J. (2010). SPSS survival manual. 4th Edition. New York: McGraw-Hill.
- Riegner, C. (2007). Word-of-mouth on the Web: the impact of Web 2.0 on consumer purchase decisions. *Journal of Advertising Research*, Dec.: 436-447.

- Samson, A. (2010). Product usage and firm-generated word of mouth: Some results from FMCG product trials. *International Journal of Market Research*, 52 (4): 459-482.
- Statistics South Africa. (2012). Food and beverages (Preliminary) P6420. *Statistics South Africa*, November 2012.
- Trusov, M., Bucklin, R.E. & Pauwels, K. (2009). Effects of word-of-mouth versus traditional marketing: Findings from an Internet social networking site. *Journal of Marketing*, 73 (2009): 90-102.
- Vallie, A. (2012). SA Embraces fast food, new report shows. *Financial Mail*. <http://www.bdlive.co.za/articles/2012/07/12/sa-embraces-fast-food-new-report-shows> (Accessed 17 January 2013).
- Wu, P.C.S. & Wang, Y. (2011). The influences of electronic word-of-mouth message appeal and message source credibility on brand attitude. *Asia Pacific Journal of Marketing and Logistics*, 23 (4): 448-472.
- Xue, F. & Zhou, P. (2011). The effects of product involvement and prior experience on Chinese Consumers' responses to online word of mouth. *Journal of International Consumer Marketing*, 23: 45-58.
- Yang, S., Hu, M., Winer, R.S., Assael, H. & Chen, X. (2012). An empirical study of word-of-mouth generation and consumption. *Marketing Science*, 31 (6): 952-963.

A PRELIMINARY STUDY OF AUSTRALIAN TAX PRACTITIONERS' ETHICS

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ABSTRACT

The tax compliance literature indicates that limited Australian empirical research has been conducted into the ethics of tax practitioners. This preliminary study seeks to address this gap and investigate the views of tax practitioners' regarding the Code of Professional Conduct and general ethical and moral issues faced in their work. The study adopted a mixed method research methodology drawing data from both a survey instrument and interviews. It is suggested that the results provide useful information for the Australian tax authority and has implications for tax policy development.

INTRODUCTION AND BACKGROUND

This study investigates the views of tax practitioners with regards to various ethical issues they potentially face in their work. An examination of the tax compliance literature reveals there is a lack of recent empirical research in Australia regarding the influence of tax practitioners who act as intermediaries, between the Australian Taxation Office (ATO) and the majority of Australian individual taxpayers (Richardson and Sawyer, 2001). As tax practitioners are viewed as representatives of both the taxpayer and the revenue agency it is important to ascertain where their allegiances lie when faced with vexed ethical situations.

The tax practitioner represents a significant third category of actor together with the taxpayers and the ATO in a tax system of voluntary compliance Marshall et al (1998). This is particularly so in situations where the tax law is ambiguous and the tax owed depends on the interpretation of the complex provisions of the law Ayers et al. (1989). As tax practitioners carry the responsibility for accurate tax filing for the majority of Australian tax payers (Baldry, and K McKinstry, 1995) as approximately 75% of Australian individual taxpayers lodge through a tax agent or accountant, they are also in a position to exert a strong and direct influence on the compliance and tax administration process Erard, (1993).

The importance of tax practitioner ethics, with respect to tax administration, enforcement policies and the distribution of equity in the tax system was initially recognized in Australia in the early 1990's. A draft project relating to tax agents professional standards and regulatory arrangements was submitted to the Commissioner of Taxation's National Tax Liaison Group in 1992. An agreement between the ATO and the professional bodies consequently endorsed a National Review of Standards for the Tax Profession. In particular, the then Commissioner Boucher, (1993) emphasized the ethical component of tax advice: "Ethics is an intrinsic aspect of providing tax advice. Tax advisers play a role in shaping our tax morality. Whether in-house or external they become involved in the decision- making processes of the enterprises they advise." (p.52)

At an international level, the influence of tax advisers on the ethical standards of their clients has also been identified by Gordon (1988): Their advice communicates by implication many political judgments about the legitimacy of legal norms and regulations and about the normative value of complying with them, whether they want it to or not. They can't choose not to be influential; they can only decide not to care or think about their influence and whether they should exercise it differently. (p.30)

Since the early 1990's major developments in the regulation of tax practitioners and their accountability with respect to the advice they provide was evidenced in the release of exposure draft legislation in 2007. Further draft transitional provisions and consequential amendments resulted in the introduction of the *Tax Agents Services Bill* in 2008. Finally, after nearly fifteen years in the making the recently established Tax Practitioners Board, introduced the *Tax Agents Services Regulations* and the *Tax*

Agents Services Act (2009), including a Code of Professional Conduct which became operational from 1 March 2010.

However, despite the increased attention directed towards tax practitioner standards and professional conduct and the impact it might have on tax compliance, there has been little empirical research as to the influence tax practitioners' ethics may have had on compliance levels in Australia. It is submitted that this research will give an indication of the effectiveness of these recent measures upon tax practitioners' ethics, and whether this ultimately may have influenced the ethical behavior of taxpayers themselves.

Consequently, the results of this study contribute to the literature by revealing how and why the views of tax practitioners, either directly or indirectly, influence the ethical climate and level of compliance amongst Australian individual taxpayers. Ultimately the research has the potential to further elicit the reasons on how tax practitioners impact the compliance landscape and improve the ATO's collections thereby improving the provision of goods and services to members of the community.

The remainder of this article is organized as follows. The next section provides the relevant research questions for this study and briefly describes the research methodology. The third section presents a discussion and analysis of both quantitative and qualitative research findings. Finally, a brief summary of the key findings/implications, along with some tax policy considerations, and limitations are given in the conclusion.

RESEARCH METHODOLOGY

Based on the forgoing discussion, the following research questions were posed to gauge the views of tax practitioners on various ethical and related issues.

Research Questions

1. What are the views of tax practitioners' with regards to the professional and ethical standards stipulated in the Code of Professional Conduct?
2. What are the views of tax practitioners with regards to various ethical issues faced in their work?

In order to address the research questions posed above, an electronic survey instrument was developed and distributed to tax practitioners via a web link. (The software version used was Qualtrics). In particular the web site of the Australian CPA's (Certified Practising Accountants) and the Association of Tax and Management Accountants (ATMA) in Australia allowed members to participate in the anonymous survey and to provide further information by way of a telephone interview if desired.

Survey Instrument

The entire survey instrument comprised 18 questions with Q19 calling for additional comments, if any. In Section A of the survey Q1 to Q9 obtained specific demographic data and this was followed by Section B which addressed particular ethical and related issues. A five point likert scale ranging from strongly agree to strongly disagree for Q10-11 was provided. Following this Q12-18 required a yes or no response with space provided for additional comments in some questions. Some of the questions were adopted from a tax ethics study on New Zealand Tax practitioners, conducted by (Attwell and Sawyer, 2001).

Survey Sample

The survey remained open for a period of 4 weeks during May –June 2012. Potentially, the exposure to CPA tax practitioners and tax and management accountants was to approximately some 11,000 members. A total of n= 283 survey responses were received giving a response rate of 2.6%. However it was envisaged that the total number received would be sufficient in terms of a basic statistical analysis and provided a snap shot of the preliminary results. In addition, 11 tax practitioners were happy to express their views further in a telephone interview.

DISCUSSION AND ANALYSIS OF RESEARCH

FINDINGS

**Table 1 Descriptive Statistics – Demographic Profile of the Tax Practitioner
Sample Survey Q1-9**

<i>Survey Question</i>	<i>Frequency</i>	<i>Percent</i>
1. Tax Practitioner Office		
Sole Practitioner	87	31%
2-5 partners	21	7%
6 or more partners	18	6%
Directors, if a company	50	18%
Industry	57	20%
Tax Consultant/Agent	47	17%
Other (please state)	3	1%
Total	283	100%
2. Legal Structure		
Limited Liability Company	38	13%
Partnership	38	13%
Sole Trader	165	58%
Other (please specify)	42	15%
Total	283	100%
3. Tax Related Work time		
100%	48	17%
75-99%	75	27%
50-74%	87	31%
25-49%	61	22%
0-24%	10	4%
Total	281	100%
4. Type of Client Base		
Salary and Wage Earners	30	11%
Self Employed Persons	28	10%
Small Medium Business (SME)	177	63%
Large Business	36	13%
Other (please state)	11	4%
Total	282	100%
5 Age.		
20-29 years	13	5%
30-39 years	59	21%
40-49 years	83	30%
50-59 years	89	31%
60-69 years	33	12%
70-79 years	4	1%
Total	281	100%
6 Tax Experience		
0-5 years	7	2%
6-10 years	20	7%
11-15 years	58	21%
16-20 years	61	22%
21-25 years	62	22%
26-30 years	36	13%
31-35 years	26	9%
36 or more years	12	4%
Total	282	100%

7 Location		
NSW	61	22%
VIC	110	39%
QLD	65	23%
SA	23	8%
WA	18	6%
TAS	3	1%
NT	1	0%
ACT	0	0%
Total	281	100%
8. Gender		
Male	206	73%
Female	76	27%
Total	282	100%
9: Professional Affiliation		
CPA Australia (CPA)	157	56%
Institute of Chartered Accountants (ICA)	24	9%
Association of Taxation and Management Accountants (ATMA)	86	30%
Other (please state)	15	5%
Total	282	100%

The results in Table 1 above indicate that the majority of tax practitioners were sole practitioners 87(31%) with large numbers also working in industry (20%) or in the capacity of a company director (18%). This was expected to some extent as the majority of registered tax agents are sole practitioners or consultants. The results also indicate that the preferred legal structure amongst this sample of practitioners was a sole practitioner with (58%). All other entity structures were less preferred although it is noted that there were in fact a variety of structures employed with various trust structures being used (See other 15%) indicating that it is still one of the most popular, particularly unit trust with a corporate trustee.

The results indicate that the majority 75% of practitioners sampled spent 50% or more of their time on tax related work while 17% spent 100% of their time in tax related work. This was expected to some degree as other financial or accounting services provided are usually limited and do not attract the same remuneration. Many tax practitioners may specialize in a tax area and also have generalist tax knowledge to service a range of clients.

Further to the type of client serviced in Table 1 above, it is noted that the most popular is the small medium enterprises (SMEs) at (63%). This result was not unexpected as the average practitioner finds these clients the most lucrative given the expertise required. That is, the practitioner would arguably not generally have the skills and knowledge to deal with the more complex large businesses and would find salary and wage earners and the self-employed being less profitable. The SME also brings various GST and FBT obligations that must also be dealt with.

The figures in Table 1 reveal that the majority of tax practitioners were between the age of 40 and 60 years (61%). This is not surprising given that very few younger graduates are taking up tax practices illustrated by only 5% in the 20-29 age bracket. It also suggests that the number of accountants that will be practising tax in the future will continue to decline and only the larger firms will be left to service clients. Further the majority (65%) of practitioners had between 11 and 25 years of tax experience with only 9% of practitioners indicating less than 10 years. This is a reflection of the current state of the tax profession generally in that it is aging and not as many younger graduates are entering the profession. This could have implications for the future availability of advice being offered by Australian practitioners and arguably tax services may need to be derived offshore in the future.

As expected the majority of the practitioners came from the more populated states in that of Victoria and NSW and also Queensland (84%) and also as expected 73% of tax practitioners were males and 27% females. It confirms that tax practice continues to be heavily male dominated. Finally, the majority of practitioners were CPAs (56%) with 30% coming from the Association of Taxation and Management Accountants. This was also expected given that the survey instrument was placed on the web site of both these accounting bodies and members were attracted directly by the on-line invitation. It is noted however, that many practitioners were also members of two or more associations including the Tax Institute, the Law

Society and the Institute of Practicing Accountants. In this regard it will be important to distinguish the type of advice provided by practitioners of different affiliations. The following analysis only focuses on the professional code of conduct and issues of general tax ethics.

Table 2 Core Statistics –Code of Professional Conduct Survey Q14

14. In your view, to protect the integrity of, and public confidence in tax practitioners, do you believe all practitioners should be registered and comply with the professional and ethical standards as set out in the Code of Professional Conduct in the Tax Agent Services Act 2009. Please make any comments you have on this issue below.

#	Answer	Response	%
1	Yes	243	86%
2	No	39	14%
	Total	282	100%

No

Generally yes

The real issue for public confidence is do I act for the client not the Tax Office. If I act for Financial Planners should not be exempted

Self-ethics

The results in Table 2 above indicate strong support (86%) for compliance by tax practitioners with the Code of Professional Conduct as stipulated in the *Tax Agents Services Act 2009*. The introduction of the code appears to have been well received and supported by the majority of this sample of tax practitioners and has the force of law. This finding has been supported by previous studies where respondents who had defined themselves most inclusively, and identified with their nation as a whole, possessed the most favorable tax ethics and attitudes (Wenzel 2007, p 44).

However, there was a small amount (14%) who indicated that tax practitioners need not comply with the code in order to protect integrity or improve public confidence in tax practitioners. Rather as stated it was self-ethics which actually regulated a tax practitioners' behavior, with regards to personal morals as opposed to society norms. Certainly preventative campaigns fighting tax evasion acceptance could be more successful if they are informative and oriented toward better explaining the benefits of public policies than when they are educational and oriented to directly increasing the sense of duty and solidarity of taxpayers (Molero, and Pujol, 2012, p 159) as would be the case of tax practitioners here.

Interestingly the results in Table 3 indicate that the majority (62%) of practitioners surveyed did not face any ethical or moral problems in their work. Given the nature of the work and advice provided on particularly contentious issues, this was surprising. Of the (38%) who did confront problems, there was a variety of issues, including tax avoidance schemes, false claims, misrepresentation and difficult professional positions taken. As indicated by one practitioner, other than tax avoidance measures the other issues are a daily occurrence in this job which emphasizes the importance of monitoring and improving tax practitioner ethics. Further general comments in this regard can be viewed below in Table 4 below.

Some of the comments in Table 4 above illustrate the difficulty some tax agents are faced with and the conflict of interest they potentially endure. One important feature is the ability to distinguish between tax evasion and tax avoidance, and that as tax agents' tax avoidance will generally be the aim. Those who go against that principle whether agent or client need to be dealt with by tax authorities.

SUMMARY AND CONCLUSIONS

Summary

The findings with regards to the two main research questions posed, based on both the quantitative and qualitative research components are as follows. While the survey results generally supported the need for a Code of Professional Conduct there were mixed results in the interviews. Some agents indicated that they were self-regulated and that the Tax Agents Board would be adequate in maintaining tax agent integrity. However, most acknowledged that the Code was appropriate and now provided penalties according to the

degree of seriousness. It was noted that additional deterrent measures could still be put in place to support the Code in the tax agents' view.

With an emphasis in this research upon the ethical and moral issues confronting tax agents, some interesting views were gathered in this regard. For instance approximately half of the tax agents were happy to act for taxpayers who had been prosecuted or had late lodgment imposed, had penalty tax imposed or inadvertently understated private use of a motor vehicle. However, it was clear that the majority would be uncomfortable in acting for clients who had promoted tax avoidance schemes. Although there was evidence of an allegiance to clients first, tax agents felt compelled to either educate or discard clients who refused to comply. When faced with ambiguous or contentious situations tax agents would generally adopt a cautious approach in advising their clients.

Table 3: General Ethics – Survey Q18

18. In your job situation, have you personally faced any difficult ethical or moral problems?				
#	Answer		Response	%
1	Yes		107	38%
2	No		175	62%
	Total		282	100%
retaining client confidentiality with previous accountant - it was maintained but it was under difficult circumstances; non-disclosure to ATO & relations-spouse, partners etc				
Watching senior personnel behave unethically and not being able to do / say anything				
Clients desire to over claim expenses and also not declare all cash sales				
A client who I discovered had used my name as being the auditor of self- managed super funds when I had not been involved with those Funds. A client who wanted advice on how to set up his employment affairs in order to reduce his child support payments.				
1, Wife working in a massage parlour without her husband's knowledge, wanted to lodge amended return without husband knowing. 2. Client had an obvious "ghost" payroll expense for subcontractors. We parted company.				
discovered good client was a drug dealer. had to resign engagement				
Ethical problems are an everyday occurrence in this industry. I face all of the above listed scenarios except tax avoidance schemes one on a daily basis.				

Tax Policy Implications

Clearly tax professional representation is high in Australia and is accepted largely due to issues of tax complexity and the strong desire to minimize high rates of tax payable. However, this heavy reliance on tax professionals can be unhealthy and puts pressure on the tax profession. In this sense it is important that tax simplification continues and that tax loopholes are closed so that the potential workload on tax professionals may be alleviated. The integrity of overarching principles which aim to bring about compliance with the spirit of the law as opposed to the letter of the law needs to be defended (Hite and McGill, 1992) so as to not compromise tax agents' ethics.

It is also apparent that the code of professional conduct although a step in the right direction needs to be supported by strong enforcement and the Tax Agents Board. Harsh deterrent measures in terms of penalties need to be maintained in order to continue the decline in exploitation schemes. Industry benchmarking while having some impact also requires other active compliance measures and further sophisticated methods in order to improve creditability. Overall, based on the evidence herein, it appears that tax agents' ethics are generally of a good order, while there is still plenty of room for improvement. When compared to the results of Attwell and Sawyer's study of NZ tax agents in 2001 of barely passing at 60%, this is encouraging.

Limitations

First, as with most behavioral studies, the sample of tax practitioners was not totally representative of the wider Australian tax practitioner population which makes it difficult to extrapolate the results. Second, as this study was only exploratory in nature the data was not subjected to more rigorous statistical analysis which would have been undertaken in a wider study. However, the fact that there was a reasonable number

(n=283) in the sample to conduct some meaningful analysis maintained the validity of the results and allows some comparability with previous studies. Third as this study only focused on selected ethical, compliance and demographic variables, not all variances were explored, thereby limiting overall results. Finally, problems of honesty and misinterpretation in tax surveys are always present and hard to erase (Hite 1988), particularly in the case of sensitive ethical issues.

Table 4 Other Ethical Issues/comments Survey Q 19

19. Do you have any additional comments that you wish to make on tax ethics in general or on this survey?
Text Response
Ethics is a personal thing I am unsure how you will monitor this.
IF IT IS NOT PROHIBITED BY LAW AND HELPS CLIENTS REDUCE TAX PAYABLE ITS OK WITH ME. IN THIS SENSE ETHICAL BOUNDARY IS DEFINED BY CONSIDERATION TO LAW ONLY. I DON'T THINK ANY TAX AGENT SHOULD HAVE TO EVEN THINK ABOUT ADVISING A CLIENT NOT TO DO SOMETHING WHICH IS PERMITTED UNDER LAW DUE TO SOME KIND OF HIGHER ETHICAL BOUNDARY. MANY OF OUR CLIENTS OPERATE IN INDUSTRIES WHERE ATO HAS PUBLISHED BENCHMARKS. SO NOW WE COMPARE CLIENTS TO BENCHMARKS AND IS THEY ARE WITHIN ATO RANGES I FEEL I HAVE MADE ENOUGH ENQUIRY WITH REGARDS TO FIGURES CLIENT HAS SUPPLIED ITS ONLY IF THEY FALL OUTSIDE BENCHMARKS THAT I WILL ENQUIRE WITH CLIENT AND THEM ITS ONLY TO ADVISE THEM IF WE LODGE FIGURES AS IT THEY MAY STAND OUT ON ATO RADAR FOR AUDIT PURPOSES
For as long as tax law is perceived to be unfair and unreasonably applied (vide TR2010/3) people will see anything they can do to minimize tax as a fair and reasonable response.
I can only explain the tax laws and if I feel clients are not being truthful - I no longer act as their tax agent
All practitioners are there to apply the law. By aiding or abetting evasion they become lawbreakers. There is absolutely no way that an intelligent well trained professional accountant can confuse avoidance with evasion and there is absolutely nothing immoral or unethical about a practitioner assisting a taxpayer to legally avoid tax.
Q 18 Wholesale abuse of DGR funds: School Bldg and PBI and abuse of Exempt Benefits by supposed religious practioners I appreciated the good strong questions and will look forward to read the results of this survey
Question 10 very confusing not sure if answered correctly.
The TPB needs to apply consistent standards and penalties to rogue tax agents and it needs to do it often. The ATO needs to be more proactive in hunting out shonky and illegal agents and prosecute the people who use them. Once it is known that you will be prosecuted for using a shonky or illegal agent taxpayers will change their behavior
A good survey good luck!
Whilst the tax office treats we agents as the 'Tax agents' and not as part of the team - clients expect us to avoid as much as possible - by nature alone we will battle to ethically do the right thing and the internal conflict of interest will plague us to 'not lose a client' The issue falls back to a simple conclusion - the law is the law
The problem is that it against professional body and accounting standards to disclose details to the ATO without the authority of the taxpayer.
It's very easy to be ethical as an accountant. It's a very clear choice & everybody gets the reputation they deserve
Q16 - Though an assumed correlation exists, it does not make the statement true Q18, My comments I wish to add are as follows: Clients always want to pay less tax, and want to rush their Forms>Returns quickly in order to avoid paying more in Agent fees (in relation to time & \$) and also for speedy refunds if applicable, therefore most people don't care for the accuracy of the Tax system.
Regarding a lot of the questions - it really is impossible for me to comment on. Regarding some of the questions above in relation to strongly agreeing - It is of course ethical for a tax agent to advise someone in those situations - the advice might very well be correct advice such as, you have to declare your income. To say it is unethical is ridiculous

REFERENCES

- Attwell, R. L., Sawyer, A, J, (2001), The Ethical Attitudes of New Zealand Tax Practitioners –Still Barely Passing?, *New Zealand Journal of Taxation Law and Policy*, Vol. 7, p 111-146.
- Ayres, F L, Jackson, B R, Hite P S, (1989), The Economic Benefits of Regulation: Evidence from Professional Tax Preparers, *The Accounting Review* LXIV (2) (April), 300-311.
- Baldry, J McKinstry, K (1995), Explaining the Growth in Usage of Tax Agents by Australian Personal Income Taxpayers, (ATO Compliance Research Conference, Canberra 7-8 December, 1995).
- Boucher, T P (1993), Paying Tax – Simply the Right Thing to Do, *The CCH Journal of Australian Taxation*, October/November 1993, 50-56.

Erard, B, (1993), Taxation with Representation- An Analysis of the Role of Tax Practitioners in Tax Compliance, *Journal of Public Economics*, 52, 193-197.

Gordon, R W, (1988), The Independence of Lawyers, 68, *Boston University Law Review*, I, 1-83.

Hite, P. A., (1988), An Examination of the Impact of Subject Selection on Hypothetical and Self-Reported Taxpayer Non-compliance, *Journal of Economic Psychology*, Vol. 9, No. 4, December, 445-466.

Hite P A, Mc Gill, G A, (1992), An Examination of Taxpayer Preference for Aggressive Tax Advice, *National Tax Journal*, December, 389-403.

Marshall, R L, Armstrong, R W, and Smith, M, (1998), The Ethical Environment of Tax Practitioners: Western Australian Evidence, *Journal of Business Ethics*, September 17, 12, 1265-1279.

Molero, J C Pujol, F., (2012), Walking Inside the Potential Tax Evader's Mind: Tax Morale Does Matter, *Journal of Business Ethics*, 105-165.

Richardson, M., Sawyer, A. J., (2001), A Taxonomy of the Tax Compliance Literature: Further Findings, Problems and Prospects, *Australian Tax Forum*, Vol. 16, 37-320.

Wenzel, M., (2007), The Multiplicity of Taxpayer Identities and Their Implications for Tax Ethics, *Law and Policy*, Vol. 29, (1), 31-50.

A STUDY OF UNETHICAL BEHAVIOUR CONCERNING LEGAL FEES IN CIVIL LITIGATION FROM A SOUTH AFRICAN PERSPECTIVE

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ABSTRACT

During the last two years many lawyers and counsel had to answer to the court regarding fees they charged in civil litigation. Apart from legal practitioners that charge fees on an hourly basis, there are three main fee structures namely party and party fees, attorney and client fees and contingency fee agreements. Even though the Contingency Fee Act 66 of 1997 has clear stipulations and states that a legal practitioner may only claim a maximum of 25 % of the amount awarded to the client or double the practitioner's usual fees, whichever is the lower, contingency fee agreements are still open to the most severe forms of client exploitation. Legal practitioners claim to enter into common law contingency fee agreements with their clients on the basis that common law contingency fee agreements do not resort under the Contingency Fee Act. Law societies are not in agreement as to whether or not contingency fee agreements could still be concluded in terms of the common law. The aim of this paper is to explain the fee structures available to attorneys and to discuss examples of unethical behaviour by legal practitioners in this regard. This paper is a literature study.

INTRODUCTION

C J Langenhoven, a renowned early twentieth century South African writer and poet said: "If a person litigates for a jacket, he should keep his trousers ready for the legal fees". In similar vein, Lord Brougham remarked as follows: "A lawyer is a gentleman who rescues your estate from your enemy and keeps it for himself". And then there is the following saying, of unknown origin: "A man is innocent until proven broke". It is also said that in order to get a group of lawyers to smile for a picture they must just be asked to say "Fees". Although these quips are usually made with tongue in cheek, they undoubtedly reflect the views of many a litigant faced with an excessively high legal bill.

In South Africa, the years 2011 and 2012 were particularly notorious in so far as publicity of legal practitioners' exploitation of clients was concerned. Especially attorneys representing clients in Road Accident Fund (RAF) claims provided for in terms of the Road Accident Fund Act 56 of 1996 came under barrage. On 4 June 2012 the Daily Dispatch reported the case of Ngubuzayo Dumse who was disabled in an accident in 2003. In 2010 the firm of attorneys concerned paid Dumse R200 000.00 out of the R787 610 they received from the RAF. However, the firm instructed him to repay R105 323 of this amount for outstanding legal fees. This left Dumse with 16 % of the initial amount awarded. Dumse consulted another lawyer (Cole) who referred to the fee in question as unconscionable, unfair, injurious to the administration of justice, contrary to the Cape Law Society's guidelines and contrary to the good morals of society. Cole pointed out that Dumse's first lawyers' fee was 1100 % more than party and party fees. The legislation pertaining to the RAF has since been amended by restricting the amounts payable for injuries. Furthermore, the RAF does not make any contribution towards claimants' legal costs if the claimant has settled the matter with the RAF, a step obviously aimed at avoiding any payment of legal costs to a claimant's attorney. After the abovementioned amendment to the Road Accident Fund Act few potential clients qualify for worthwhile claims. There are therefore fewer claims on which fees can be charged. Many attorneys who previously built their practices on RAF cases are now obliged to explore other fields for an income. To this end the focus is currently shifting to medical malpractice claims.

As regards the determination of professional fees, attorneys have the following alternative fee systems at their disposal: they may bill on an hourly fee basis; on an attorney and client fee basis; or on a contingency

fee basis. The attorney should, during the first consultation, explain the applicable fee structure so as to enable the client to make an informed decision on the question whether, from a costing point of view, it would be a worthwhile effort to proceed with the matter.

FEE STRUCTURES FOR LEGAL FEES IN CIVIL LITIGATION

Apart from legal costs based on an hourly fee, the three main categories of legal costs are those which will now be discussed.

(i) Party and party fees

Party and party tariffs are prescribed by legislation. In order to keep up with inflation they are adapted from time to time by publication in the Government Gazette. There are separate fee scales for party and party fees in the Magistrate Court and in the High Court, respectively. Party and party fees are the most conservative fee structure. When judgment is given in civil litigation, the magistrate or judge also deals with the legal cost issue, in other words a determination must be made as to which party would be liable for the legal fees. Usually the unsuccessful party has to pay the successful party's legal fees. Unless otherwise stated by the court, this is party and party costs which means that the unfortunate litigant must contribute to his opponent's legal fees.

(ii) Attorney and client/attorney and own client fees

Attorney and client fees are more extensive fees which an attorney is entitled to recover from his own client for professional services rendered. While party and party costs are limited to necessary costs, attorney and client costs are all costs incurred by the litigant's attorney, for example costs pertaining to regular progress reports sent to the client. The losing party is not responsible for such expenses. Where, for example, plaintiff was the successful litigant and defendant has to pay plaintiff's party and party costs, these costs are deducted from the attorney and client costs and the plaintiff remains liable for payment of the balance to his legal representative.

There are attorneys who refer to attorney and own client costs which according to them, are costs on an even higher scale than attorney and client costs. This is not a valid distinction because attorney and own client fees are non-existent

Experience and expertise play an important role in the determination of an attorney's fee. The Law Societies of most provinces publish guidelines on what they regard as reasonable fees. Attorneys that are admitted to appear in the High Court may charge the same higher fee as counsel.

(iii) Contingency fee agreements

Contingency fee agreements (also called *pacta de quota litis*) were forbidden in terms the common law but were legalised in 1997. They are often referred to as "keys to the courthouse" or "no win, no fee" agreements. In terms of such an agreement any person with a strong case, but without sufficient funds to bear the initial costs occasioned by the legal proceedings can have such proceedings instituted. Should the attorney as party to such agreement, be successful with the claim, the attorney receives a percentage of the amount awarded to the client. In the event of an unsuccessful claim no remuneration is due. Contingency fee agreements are regulated by the Contingency Fee Act 66 of 1997.

normal attorney's fee, whichever is lower. According to a newspaper article published in "Beeld" on 26 October 2012, an increasing number of attorneys are of the view that 25 % is not a realistic percentage as they have to pay all expenses from this 25 %, including counsel's and expert witnesses' fees. Section 3(1)(a) of the Act requires a contingency fee agreement to be in writing. In terms of section 3(3)(h) the agreement shall allow the client 14 days, calculated from the date of the agreement, to withdraw from the agreement after written notice to the legal practitioner. In the event of withdrawal the legal practitioner shall be entitled to fees and disbursements in respect of necessary work done calculated on an

attorney and client basis. Section 4 requires a copy of the agreement to be delivered to the client upon the date on which the agreement is signed.

An obvious advantage of fee agreements is that where an attorney is of the opinion that a client has a reasonable prospect of success in court, such client is given access to the court notwithstanding insufficient funds to institute legal proceedings. A contingent fee agreement serves as incentive for the lawyer to utilise his time as efficiently as possible because the remuneration does not depend on the quantity of time spent to complete the task but on the extent of the amount eventually awarded to the client. On the other hand, an hourly fee structure serves as incentive to work slowly in order to use as much time as possible. By entering into a contingency fee agreement the client of course runs the risk of being liable for payment of the taxed party and party costs of the successful opponent.

Contingency fee agreements may not be entered into in criminal law and family law matters.

(iv) Common Law Contingency Fee Agreements

The fee provided for in terms of this agreement is higher than the fee prescribed in the Contingency Fee Act. It is respectfully submitted that this agreement creates the ideal opportunity for overreaching. Law societies in the different provinces are not in agreement as to whether common law contingency fee agreements should still be recognised. In some provinces legal practitioners may charge common law contingency fees and in other provinces they may not. Cloete and Nagel (424) have doubts about the power of law societies to declare common law contingency fees illegal and they raise the question whether that decision should not rather be made by a court of law.

Common law contingency fee agreements were discussed in *Thulo v Road Accident Fund* 2011 5 SA 446 (GSJ). This case dealt with compensation in terms of the Road Accident Fund Act 56 of 1996 for injuries suffered in a motor vehicle accident. The court held that the RAF was liable for 70 % of the plaintiff's damages due to injuries. Plaintiff's attorney worked on a contingency fee basis. Counsel for the plaintiff handed into court a draft order in terms of which the RAF would be required to make payment directly into the trust account of the plaintiff's attorney to ensure that funds would be available to pay the fees of counsel and experts. However the court intimated that the money had to be paid to the client directly. Morison AJ held that the practitioner's fees were limited to (i) 25 % of the amount awarded in the judgment or (ii) double the normal fee of that practitioner, whichever was lower. According to the court the purpose of the Contingency Fees Act was to ensure that the client was paid at least 75% of the amount obtained through successful litigation. The court denied the existence of any common law contingency fees, and pointed out that if, for example, the defendant should fail to pay the taxed costs to plaintiff's attorney, the latter would not be entitled to recover those costs from his/her client if that would result in the client receiving less than 75 % of the amount awarded to him/her.

ETHICAL CONCERNS OVER CONTINGENCY FEE AGREEMENTS

According to the American Bar Association Standing Committee on Ethics and Professional Responsibility, all contingent fee agreements carry risks: the risk that the case would require more work than the lawyer anticipated; the risk that the law might change; the risk that the client could dismiss the lawyer; the risk that the client could reject a proposed settlement which the lawyer might consider to be an acceptable one; or the risk-that the client might require the proceedings to be continued when the lawyer considers it unjustified.

What does the generally accepted requirement that an attorney's fee must be "reasonable" mean? Is a standard fixed-percentage contingent fee always proper, or is a dynamic fee that reflects the degree of risk inherent in the matter, preferable. There are strong views among some academics that lawyers who charge a standard contingency fee in a case which does not entail meaningful risk, is charging both an illegal and an unethical fee. This fee is said to be unethical because it violates the lawyer's fiduciary duty to deal fairly with clients. The charging of a contingency fee which is grossly disproportionate to a realistic risk of non-recovery amounts to charging a "clearly excessive" fee. Former Harvard president and law school dean, Derek Bok, stated that there is little room for bargaining over the terms of the contingent fee. He pointed out that most plaintiffs do not know whether they have a strong case and that very few lawyers will inform their clients if that is the case and agree to a fee which is lower than the fee calculated according to the standard rate. Good faith is a central principle of the South African law of contract. Conflicting ethical precepts often

reflect the tension between the view of an attorney as a fiduciary and public servant, and the view of an attorney as a businessperson.

ETHICAL CONCERNS OVER COUNSEL FEES

On 29 September 2011 the North Gauteng High Court made a strong standing against unethical behaviour by legal practitioners in the case of *The Pretoria Society of Advocates and General Council of the Bar of South Africa vs Geach, Guldenpfennig, Pillay and others*. The case deals with disciplinary action taken by die Pretoria Society of Advocates against 13 members of the bar. The general charges were double briefing and overreaching. All 13 respondents were experts in their particular fields of litigation, namely claims against the RAF for damages arising from personal injuries. They all had been at the Bar for decades and were all regarded as men of good standing. Disciplinary proceedings were first instituted by the Pretoria Bar Council against 13 counsel concerned. Each was sentenced to a fine and a period of suspension except for one counsel that was struck off the roll, but members of the Bar were split. Some thought the sentences to be too harsh and others regarded them as too lenient. Some thought the matter should rest and others felt the transgressions should be referred to the court. The latter view prevailed when, at the insistence of the General Council of the Bar of South Africa (GCB), the umbrella body representing all constituent South African bars, the matter was referred to the North Gauteng High Court. The acting judges were Van Dijkhorst AJ, Combrink AJ and De Villiers AJ. They lamented the loss of integrity and reputation caused by the relevant 13 members of the Pretoria Bar and the inevitable damage caused to the

The court referred to the matter of *Kekana V Society of Advocates of SA 1998(4) SA 649 (SCA) 656* where it was said that when a person decides to practise as an advocate, he subjects himself to scrutiny of his professional conduct. The Supreme Court of Appeal formulated the principle as follows: “The preservation of a high standard of professional ethics is left almost entirely in the hands of the individual practitioner. Therefore absolute personal integrity and scrupulous honesty are demanded of each practitioner...”

In the above matter against Geach, Pillay and others, the court stated that in order to remove an advocate’s name from the roll the court must, amongst other things, decide if the person is a fit and proper person to continue to practise. This is done on a preponderance of probabilities.

(i) A Fit and Proper Person

It was also mentioned in the above matter that the court’s discretion in the decision if a person is fit and proper, is not bound by rules and precedents. An analysis of decided cases has shown that the following are to be taken into account to decide whether any particular conduct would render a person not fit and proper:

- (a) The seriousness of the transgressions. Where a court finds dishonesty, removal from the roll can be avoided only in exceptional circumstances.)
- (b) Systematic contravention of the uniform rules to which an advocate subscribes upon becoming a member of the Bar, may indicate a lack of responsibility and integrity required from an advocate.
- (c) Persistent violation of the Bar Rules and a contemptuous attitude thereto are factors to be taken into account as aggravating circumstances.
- (d) Where the affected clients are especially vulnerable to abuse.
- (e) The period over which the transgressions occurred.
- (f) The extent to which clients have been prejudiced by counsel’s conduct.

The court will take the following mitigating factors into account:

- (a) If the court is of the view that a period of suspension will be sufficiently corrective to avoid a recurrence.
- (b) If the respondent has shown remorse.
- (c) If the respondent’s private life has been affected.
- (d) If the respondent has repaid amounts overcharged, but such repayments should not be overemphasised.

The salient facts pertaining to the case against Pillay referred to above could serve as illustration of the application of some of the abovementioned factors. The court held that Pillay was not a fit and proper person to practice as advocate because he did not work the hours he recorded and therefore falsely presented to clients that he had consulted for the recorded number of hours; in consequence he charged for work he did

not do. This conduct constituted fraud. This finding together with the fact that he also lied to the court, motivated the court to have Pillay removed from the roll of advocates.

(ii) Double briefing

According to the Uniform Rules of the General Council of the Bar of South Africa:

“An earlier brief, once accepted, takes precedence over a later brief. A member wishing to surrender an earlier brief in favour of a later brief shall do so only with the consent of both instructing attorneys.”

On 1 November 2006 the Pretoria Bar Council issued the following circular:

“It has come to the attention of the Bar Council that some members appear at the roll call of civil trials in several matters set down for the same day. What is further most alarming is that such counsel probably charge full fees in respect of preparation and appearance in each of these matters. Such conduct is viewed in a serious light as it amounts to double (even multiple) briefing and overreaching.”

Many a counsel has been removed from the role because of double briefing. Not only is it a transgression of the uniform rules of the general council of the Bar, but it almost always goes hand in hand with overreaching.

(iii) Overreaching and determining a fee

According to the Uniform Rules of the General Council of the Bar of South Africa:

“Counsel is entitled to a reasonable fee for all services. In fixing fees, counsel should avoid charges which over-estimate the value of their advice and services as well as those which undervalue them. A client’s ability to pay cannot justify a charge in excess of the value of the service, though his lack of means may require a lower charge or even none at all.”

“In determining the amount of the fee, the following should be considered:

- (a) The time and labour required, the novelty and difficulty of the questions involved and the skill required to properly handle the case;
- (b) The customary charges by counsel of comparable standing for similar services; and
- (c) The amount involved and importance to the client.”

Overreaching implies a level of dishonesty as a practitioner is obtaining a greater reward than that which he is entitled to, misleading those responsible for payment of the fee.

The representative of the GCB presented the following definition of the word overreach: “to circumvent, outwit, cheat in dealing, taking unfair commercial advantage of another, deceive, exceed and mislead”.

CONCLUSION

Legal practitioners have a duty to act in the best interest of their clients. This implies a moral obligation not to overcharge a client. Legal practitioners should explain their fees in detail to a potential client during the first consultation. The client must be clear on what the proceedings are going to cost him. He/she must understand, agree to and sign the fee agreement and be furnished with a copy of the agreement. The client should also be given time to consider if the legal costs justifies proceeding with the matter. Writer believes it is crucial to inform a potential client on how the fees will be calculated, but to give the client an exact amount in advance on how much litigation is going to cost is a tall order for the legal practitioner to comply with. It is seldom possible to know beforehand how much proceedings are going to cost, for example where expert witnesses could be involved.

Although the court has recently dealt thoroughly with attorneys and advocates that exploited their clients, it is alarming that these malpractices had been in progress for years before being dealt with. Surely many colleagues were aware of these malpractices but remained silent leading writer to the conclusion that an example were made of only a few of the culprits

Be it as it may, writer will be unfair not to break a lance for legal practitioners in general. There is a saying among legal practitioners: “You are a good lawyer until you send a bill”. Legal practitioners are business men and their practises are theirs and their employees’ bread and butter. They are professionals that studied many years and also completed in house training with little or no income. Surely they are entitled to a reasonable fee for work done. They have huge overhead expenses such as office rent, salaries, computers, office equipment and telephone bills to mention but a few. Surely they are entitled to a reasonable fee for work done. Unfortunately many a client in need of a lawyer is in a financial predicament, but the public

should bear in mind that the legal profession is very demanding and requires continuous study and long working hours from practitioners.

The contingency fee cap has been 25 % since the enactment of the Contingency Fee Act in 1997. Maybe it is time to be revised. It is debatable that money recovered on behalf of the client should be paid directly to client as many attorneys may now have to litigate to get the agreed 25 % from the client. As attorneys should be men and women of good character their clients should not have a problem receiving the agreed 75 % from his/her attorney. It is not fair to treat all legal practitioners as unethical and untrustworthy because of the greed of a few.

The precepts of the law are these: to live honestly, to injure no one, and to give every man his due.
— *Justinian I, Byzantine emperor (483-565)*

REFERENCES

Brickman L. (1996). Aba Regulation Of Contingency Fees: Money Talks, Ethics Walks. *Fordham Law Review* 65:247

Carlisle A. (4 June 2012). Legal Fees Cost Arm, Leg. *Daily Dispatch (South Africa)*.

Cloete R And Nagel C. (2005). Price Waterhouse Coopers Inc V National Potato Co-Operative Ltd. *De Jure*. 38(2):420

Kessler D, Summerton N And Graham J. (2006). Effects Of The Medical Liability System In Australia, The Uk And The Usa. *Lancet* 368:244

Langsing P, Fricke M And Davis S. (2009). The Ethics Of Contingent Fees In Legal Service Business. *The Journal Of The Legal Profession* 33:302

Matlala D. (December 2011). The Law Reports. *De Rebus* 39

Mcquoid-Mason D And Dada M. (2011). *A-Z Of Medical Law*. 1st Ed. Cape Town:Juta & Co. Ltd.

Moodley K. (2011). *Medical Ethics, Law And Human Rights*. 1st Ed. Pretoria:Van Schaik Publishers.

Pepper Ms And Nöthling Slabbert (2011). Is South Africa On The Verge Of A Medical Malpractice Litigation Storm? *Sajbl*. 4(1):29

Shajnfeld A (2009/10). A Critical Survey Of The Law, Ethics, And Economics Of Attorney Contingent Fee Arrangements. *New York Law School Law Review* 54:776
[Http://Brainden.Com/Lawyer-Jokes.Htm](http://Brainden.Com/Lawyer-Jokes.Htm) Lawyer Jokes And Funny Attorney Quotes

De Bruin P. (27 October 2011). Keer Só Prokureurs Wat Uitbuit. *Beeld*.

English R. (2010). Legal Costs Explained. *Er Attorneys, Cape Town*.

Koch N. (2011). The Impact Of The Road Accident Fund Amendment Act On The Legal Profession. *Adams & Adams.Co.Za*

Contingency Fees Act Nr 66 Of 1997

The Pretoria Society Of Advocates And The General Council Of The Bar Of South Africa V Geach, Guldenpfennig, Pillay, Upton, Williams, Botha, Seima, De Klerk, Jordaan, Van Onselen, Leopeng, Mogagabe, Bezuidenhout (An Unreported Case On Which judgment was given on 11 September 2011).

THE ROLES, GOALS AND ACTIVITIES OF EMPLOYERS AND HR PRACTITIONERS IN NEW ZEALAND FOR ORGANISATIONS TO BE SUCCESSFUL AND COMPETITIVE: EMPIRICAL EVIDENCE FROM A LONGITUDINAL STUDY

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ABSTRACT

This research considers the role, activities and contribution of HR and managers in six closely related themes that should be addressed to maintain high workplace productivity in a complex business environment in which there are many competing interests. Previously a reward approach was simple with two main streams pay and benefits. In New Zealand HR practitioners have been exposed to global competition creating the need for their roles, goals and activities to be recognised in adding value in organisations to be successful. The outcomes of this research shed light on when is an employer an employer of choice, employee empowerment, employee engagement, rewards based on individual and the whole organisation's performance including the remuneration component that is a reward system classifiable into monetary- and in-kind payments. Recommendations and the conclusion form the last two sections.

INTRODUCTION

In today's global economy Human Resource (HR) practitioners must be prepared to meet the considerable challenges and expectations posed by the continuing evolution of their roles, goals and activities to confirm how their function is creating and adding value to the organisation. An organisation is formed in order to fulfill a specific mission or purpose. This mission or purpose cannot be achieved unless the organisation searches for and selects the best potential employee with the right skills, knowledge and aptitudes (KSAs) for each identified job or position. It is imperative, therefore, that an organisation would design and implement an appropriate reward system in order to attract the best suitable employees in order to achieve its desired goals and objectives (Nel, Werner, Du Plessis, Fazey, Erwee, Pillay, MacKinnon, Millet and Wordsworth, 2012).

In the past, a reward (remuneration) approach was actually very simple: pay and benefits. Labour was a lot less mobile but by taking their skills offshore was really uncommon up to the stage that politicians realised what was happening especially in New Zealand. They began to refer to it as the brain drain from New Zealand. Jobs today are more of a balloon than a box; they shift as economies change and company structures morph. Individual efforts are far more valued and recognised with job security coming more from employability rather than paternal protection (Youngman 2011; Boxall 1995).

Designing and managing a reward system that includes benefits, services, and even empowerment with employee engagement as the next step is rather a complex task. It must not only ensure that the organisation is attractive to potential employees, that is the employer of choice, but it must also ensure that the employees, when placed, are as productive as possible with optimum levels of job satisfaction.

The global economic climate has become increasingly turbulent, businesses seek to keep ahead of the competition by working faster and smarter; by raising productivity levels per employee while, at the same time, increasing innovation and minimising costs (Chavan, 2009). Employment security is no longer

guaranteed, and loyalty from employees is no longer a given. Companies have always faced many challenges, but at no other time have the business challenges become more pronounced, with rapid and volatile change, as in the 21st century (Du Plessis, 2009; Jørgensen, Owen, & Neus, 2009).

At the heart of the business are managers who must deliver required services to increasingly demanding customers, through employees having differing levels of understanding, personalities, backgrounds and abilities (Drucker, 2006). Managers face complex business environments in which there are many competing interests. Working out how to make the best use of the intellectual capital they have at their disposal in the form of existing productivity tools and employee knowledge to drive productivity can be a major challenge for many of them. This research considers the role, activities and contribution of HR that can be used to drive high workplace productivity in such an environment.

Organisations must be able to attract a sufficient number of job candidates who have the abilities and aptitudes needed to add value to the company. In other words they have to become an employer of choice to ensure that they have a pool of suitable applicants who can enter the selection process when they have vacancies. A company's workforce is the lifeblood of organisations and they represent one of its most potent and valuable resources according to Du Plessis & Frederick (2010).

HR practitioners in New Zealand have been exposed to global competition creating the need for their roles, goals and activities to be recognised in adding value in organisations to be successful. The emergence of globalisation, development in technology and telecommunications; the shift towards a knowledge-based workforce; labour legislation and intensifying competition for skilled labour create new competitive realities for organisations. Employers are now looking to the HR practitioner to go beyond the delivery of cost effective administrative services and provide expertise on how to leverage human capital (Du Plessis, 2010). The roles and activities of both the employers and HR practitioners have changed over the years and this study endeavours to shed more light on these roles, activities and goals. In this paper six closely related themes are analysed and discussed: Employee engagement, rewards based individual performance, rewards based on organisational performance, an employer of choice, benefits and services, and employee participation and empowerment.

PROBLEM STATEMENT

From the research problem, taking into account the broader focus on key HR roles, goals and activities, one realises that there is a need to consider to what extent HR practitioners in NZ organisations contribute to the success and competitiveness of organisations in the current situation; but how prepared are they for the future in NZ?

OBJECTIVES OF THIS STUDY

Over the past decades several studies were done in NZ among HR practitioners' roles, goals, and activities including their competencies, future capabilities, and challenges. The ultimate objective of this study is to determine the extent to which the current contribution of the roles they play, goals they set and achieve and activities of HR practitioners in New Zealand organisations match their current competencies as well as the previous studies' predictions by HR practitioners. By comparing this study of NZ organisations with previous studies add more value and it informs the reader of how changes have taken place over the past almost twenty years in NZ.

METHODOLOGY

Background

A very comprehensive HRM questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand and Australia in 1994: (IPMNZ, 1994). The same questionnaire was used with permission for a survey to identify the future competencies and roles of HR in those countries for the year 2000 by the Human Resource Institute of New Zealand. The same questionnaire was modified and refined and used again in 2000 by Burchell (2001) in association with the Human Resource Institute of New Zealand (HRINZ) to determine a future perspective on human resources in 2010 in New Zealand. The final section of the said questionnaire sought to obtain demographic information from respondents. The same questionnaire was used with permission after minor editorial modifications for an identical survey in South

Africa in the last quarter of 2002. The topics covered in the questionnaire included human resource goals, roles and activities, and so forth. Due to the magnitude of the survey only a small section is analysed and reported upon in this paper.

The quantitative methodology adopted was an e-survey; a questionnaire containing structured closed questions. This involved the selection of a sample of people from the HR practitioner population in NZ to ascertain how factors differ, and to make inferences about the population, or in other words generalising from sample to population. Reliability of this study was seen as high (15.4% responded) as previous leading HRM studies conducted in NZ were successful with a response rate of 41 %, 11% and 34 % respectively.

Sample selection

The study focused on HR practitioners in NZ organisations who are registered as members of the Human Resources Institute of New Zealand (HRINZ). HRINZ have 3600+ individual members who are involved in the management and development of HR in private and public sector organisations throughout NZ. The target population was limited to HRINZ members that had registered to participate in HR research requests that HRINZ provided links to; the total number of HRINZ members in this category was 635. A total of 119 members responded but 98 questionnaires were fully completed and usable resulting in a 15.4% response rate.

Data collection

The data was collected via the e-survey, which was a repeat of previous studies and therefore a very important longitudinal study. The invitation to participate went to 635 members of HRINZ.

Questionnaire

The questionnaire consisted of questions to adequately explore each of the HR themes researched in this study. All the questions in the questionnaire were closed questions. Only six closely related themes are covered in this paper but due to the size of the study and length limitation for this paper not all the information could be discussed. The Tables reflect the research questions used in this paper, and the rationale for using the six specific themes is discussed later.

LITERATURE REVIEW

Background

A reward system includes anything that an employee may value and desire and that the employer is able or willing to offer in exchange for employee contributions (Marsden, 2011:16). Du Plessis (as cited in Nel et al, 2012) explains that the reward system is composed of two components: the remuneration component and the non-remuneration component see Figure 1, below.

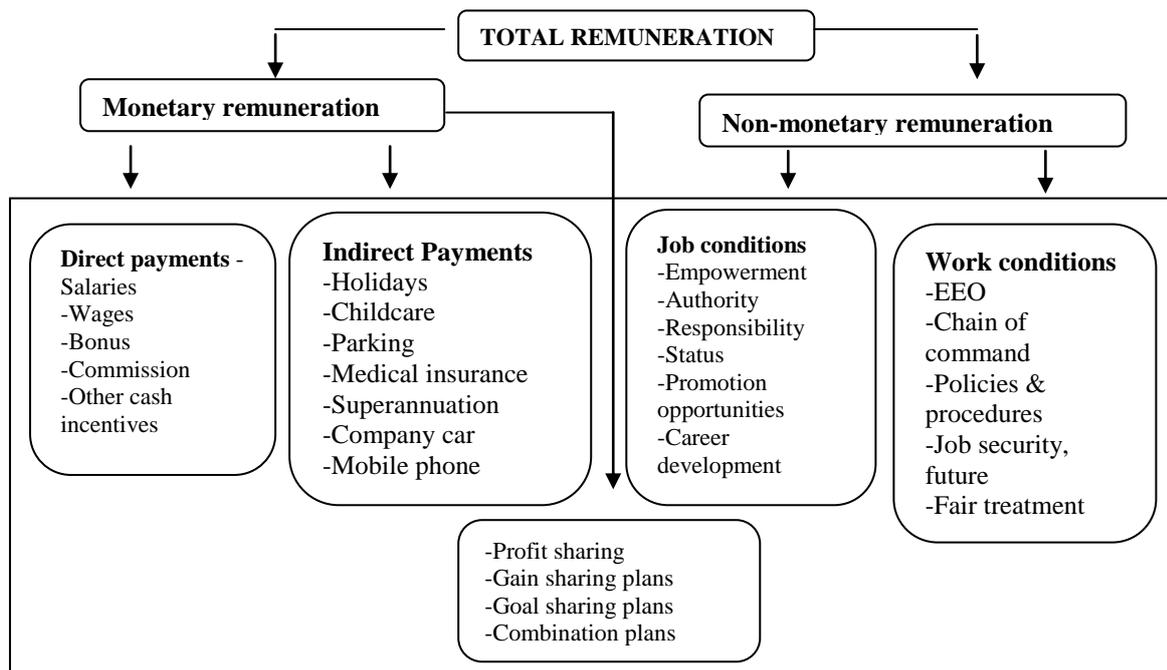
Source: A J du Plessis as cited in Nel et al (2012, p267)

This paper confines itself to when are employers an employer of choice, employee empowerment, employee engagement, rewards based on individual and the whole organisation's performance including the remuneration component that is a reward system classifiable into (a) monetary payments and (b) in-kind payments. Organisations all have different remuneration policies which is what gives the organisations or companies their competitive advantage. This paper also shed light on employee participation and empowerment that could contribute for an organisation to be regarded as an employer of choice. Therefore, remuneration management is a human resources management activity aligned with the organisational strategy that deals with every type of reward individuals receive in exchange for performing organisational tasks. It includes pay and benefits (total remuneration) or just pay (cash remuneration) (Nel et al, 2012).

Monetary claims on benefits and services are wages or salaries paid to an employee in the form of money or a form that is quickly and easily transferable to money at the discretion of the employee. Whereas in-kind claims are claims on goods and services made available and paid for either totally or in some percentage by the employer (Nel et al, 2012). Many organisations, especially in the United States, have shifted from administering salaries to administering total remuneration. There are indeed new remuneration trends. There

are several approaches to remuneration management in the modern age with all its pressures and changes, such as broadbanding, skills-competency-based pay, variable pay approaches and others (Wood et al, 2013).

Figure 1: Total Remuneration Management System



The pay debate that is, the argument regarding the best way of rewarding people for their services, has always been important because relating employee compensation to company profits (and thus to its survival) is unavoidable. This pay debate is far from settled precisely because the relationship of productivity, profitability, and personal gain in firms is critical, intractable, and permanent. The benefits could be linked with empowerment of employees and the services they get from their employers. These services and benefits could be the reason why people regard certain organisations as an employer of choice (Du Plessis & Frederick, 2012).

Stone (2011) supports the fact that the objective of a remuneration package is to influence employee motivation in a positive manner so it leads to improved organisational performance and strategy. If rewards are to be useful in stimulating desired behaviours, they must meet the demands of the employees whose behaviours they are intended to influence. People gain satisfaction from their work, but for various reasons. The degree of job satisfaction that employees enjoy has not only been difficult to identify and define, but also to measure with any degree of certainty.

There has to be a clear link between remuneration and performance (Rudman 2010). In other words, both employer and employee have to be satisfied in the exchange relationship. Marsden (2011) points out that organisations should have a more holistic view of the whole employment relationship and its value. High levels of employee engagement could enhance individual as well as organisational performance. Value-added remuneration is one in which components of the remuneration package (benefits, base pay, incentives and so on) create value for the organisation and its employees (Nel et al, 2012).

Employee benefits may be defined as rewards that are allocated to employees for being members of the organisation and for their positions or job-levels within the organisation (Paine, 2008). These benefits will include some of the following: benefits for death, accident, sickness, retirement or unemployment. Factors influencing the growth of employee benefits are industrialisation, trade unions, wage controls, cost advantages, tax advantages, inflation, and legislation. Perquisites, or perks, are a special category of benefits and are available only to employees with some special status, such as upper-level managers.

As employees acquire more skills, they become more flexible resources, developing a broader understanding of the work processes and of their contribution to the organisation. In terms of employee-related outcomes, skills-based pay results in higher pay rates, increasing satisfaction, higher skills growth, commitment, and capacity for self-management or problem solving. There is greater teamwork among

On the other hand Du Plessis and Frederick (2012) argue that there is pay for competencies which are the sets of skills, knowledge, abilities, behavioural characteristics, and other attributes that predict superior performance. True competencies are those that add value and help predict success – these are the ones that should be rewarded, which involves identifying those competencies that are needed to support an organisation's strategy. Many organisations are discovering that they want to reward more than just the skills or knowledge necessary for a role. Employees are needed who are not only skilled, but also energetic, service-conscious, and problem solvers. The answer lies in the development of less obvious competencies – the ability to work in teams, to accomplish specific goals, to solve problems rapidly, and to understand the customer's perspectives and meet their needs in a way that really adds value. Nel et al (2012) postulate that certification of competence in skills necessary to perform well in the job is required to get a pay rise. The actual selection of competencies depends on the nature of the business, and the nature of the job – competencies could include leadership, flexibility, initiative, and so on.

A reward strategy is a long-term plan designed by an organisation that aims to attract the best talent to it whilst ensuring that its present employees are operating at optimum levels of job satisfaction so that its strategic goals are achieved. Human capital gives a company its sustainable competitive advantage. In Nel et al (2012) Du Plessis has designed a model for organisations to follow should they find it necessary to design and implement a new remuneration system. Such a system has many advantages amongst others a satisfied workforce, be regarded as an employer of choice, employee engagement and so on. The first step requires a thorough analysis of the present remuneration structure, current remuneration policies, pay procedures, and salary problems. Thereafter, the remuneration system designer formulates new salary policies based on the business strategy of the organisation and incorporating the value chain.

Source: A J du Plessis as cited in Nel et al (2012 p275)

The next step is to develop the implementation plan, working closely with remuneration experts, consulting with trade unions, and communicating with all employees. Once the new system is in place, evaluation and monitoring should be carried out on an on-going basis; feedback should be given and if necessary more changes should be made. The nature of the business and its strategic plans will influence the design of the new remuneration system. The new system could be skills- or knowledge-based, competency-based, performance related, variable-based incorporating incentives, and broadbanding could be used as a pay base.

Companies should keep up with the global trends where employees have more skills and are in the position to demand better benefits or even engagement in decision making (Härtel & Fujimoto, 2010). Individual as well as organisational performance could be a good indicator for the necessity of a new system. The research results in this project shed more light on this aspect later in this paper. In many organisations, individuals have not changed as rapidly as the cultures in which they are expected to work. Many employees cling to the belief that they are entitled to ever increasing salaries, punctual and substantial raises, and luxurious benefits packages. But old habits can be broken, old behaviours changed, old expectations replaced with more attractive new ones. The knowledge of new cultures and compensation strategies must not be the sole property of the compensation professional. Line managers must have a clear understanding of pay strategies, and the rewards process must be made clear to both supervisors and employees. To be successful, reward strategies must add value to the organisation, but one must understand how they work, what values and behaviours they support, how they must be administered and communicated, and what their limitations are (Du Plessis, Paine, Botha, 2012).

ANALYSIS OF THE RESULTS

Comparison of the profile of the respondents with previous studies in NZ

A study was executed in 2000 by Burchell (2001) in association with HRINZ to determine a future perspective on HR in 2010 in NZ. Using five related themes a study was executed in 2008 by Paine (2008) and a repeat of the 2000 study was executed in 2010 by Nel and Du Plessis (Nel & Du Plessis, 2011). Some of the comparisons are depicted in Table 1, 2 and 3 below. Paine used themes not discussed in this paper therefore her comparisons are not reflected in the Tables below.

The profile of the respondents is important to add value to their opinions. In the current (being 2010) study in NZ, the most frequent title was HR Manager (46.7%), and the next most common title was HR non-management (16.7%). Those two titles accounted for 63.4% of the reported titles. There was a huge and unexpected increase in the consultants' category from 14% in 2000 to 21.7% in 2010. There was a sharp

decline in the line managers with HR functions who responded in 2000 from 10 % to only 1.7% in 2010. It can be deduced that more organisations make use of consultants than allowing their line managers to execute HR functions and activities, see Table 1, below.

Figure 2: A model for designing and implementing a new remuneration system

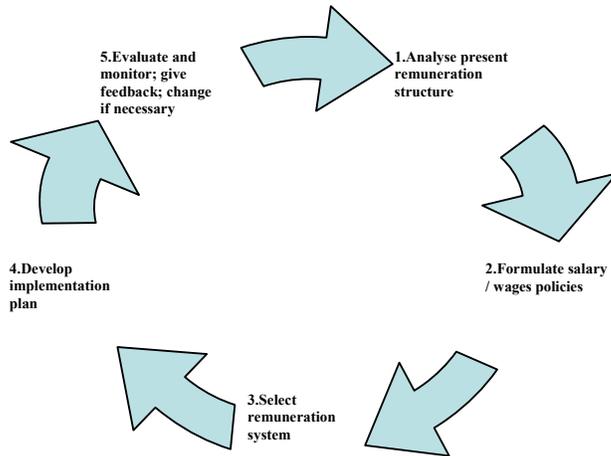


Table 1: Profile of respondents by profession in New Zealand in 2000 and 2010

Profession	NZ profile 2000	NZ profile 2010
HR (officer to director)	72.0%	63.4%
Business (line managers to CEO)	10.0%	1.7%
Consultants	14.0%	21.7%
Academic (all tertiary institutions)	4.0%	8.2%
Other	0%	5%
TOTAL	100%	100%

In New Zealand most organisations (83%) have fewer than 10 employees. In this study, the participants are from different sized organisations (see Table 2 below); the following groupings were compiled for analysis: small organisations with fewer than 100 employees (0-99); medium 100 to 499 employees, large is 500 or more employees. It should be noted that New Zealand is predominantly a country of small businesses, with 93.3% of enterprises employing 19 or fewer people ("SMEs in NZ: Structure and Dynamics," 2006)

Table 2: Profile of respondents by organisation size in NZ in 2000 and 2010

Number of employees in organisation	NZ profile 2000	NZ profile 2010
Fewer than 10	1.0%	11.7%
10 – 49	4.0%	8.3%
50 – 99	9.0%	5.0%
100 – 499	40.0%	28.3%
500 or more	46.0%	46.7%
TOTAL	100%	100%

In Table 2 above, the profile of the respondent’s organisation size employing 500 or more employees for 2000 is almost identical to the 2010 and the group 50 to 99 employees is close with only 4% less in 2010.

Table 3 below compares the six themes used in this paper as it was current in 2000 and predicted for 2010 and current in 2010 and predicted for 2020 by the respondents. None of the themes were closely predicted and none in reality are close as per the responses from the respondents.

Table 3: Six closely related themes - two categories: very important to critical for success

Closely related Themes	NZ 2000 actual	NZ predict for 2010	NZ 2010 actual	NZ predict for 2020
Employee engagement	27.3%	61.1%	68.4%	81.6%
Rewards – individual performance	11.0%	1.0%	30.0%	51.6%
Rewards – organisational performance	8.5%	14.5%	18.3%	41.6%
Reputation – employer of choice	32.4%	48.5%	38.4%	65.0%
Benefits and services	8.2%	8.2%	16.7%	43.3%
Employee participation and empowerment	3.0%	45%	35.0%	71.7%

Employee engagement

Employee engagement in the day-to-day activities of organisations seems to get momentum. The actual for 2000 was 27.3% and the respondents predicted that it will increase to 61.1% in 2010. The actual figure for 2010 was 68.4% and therefore it was actually more important as what the respondents predicted in 2000. Interestingly the figure increased with another 12.9% as predicted for the future (being 2020). It confirms the earlier statement that employee engagement gets momentum and it can be said that employers regard employee inputs more and more valuable for the success of their businesses. For 81.6% of the respondents, it is very important to critical for success in 2020. At the other end of the spectrum, only 13.2% of the respondents regarded it more important in 2020 than the actual figure of 2010 whereas in 2000 a huge increase of 33.8% was reported to 2010.

Rewards based on individual performance

The respondents were asked to state how important rewards is for individual performance now (being 2010) and for the future (being 2020). The 2000 respondents forecasted a decrease of 10% to 2010. They were totally off the mark because the actual figure for 2010 was 30% of the respondents that regarded individual performance currently (being 2010) and a further 21.6% on top of this figure regarded it important and critical for success in 2020. In comparison there is a 19% difference between 2000 and 2010 actual figures and a very close 21% between 2010 (actual) and 2020 predicted figure. Employees have changing needs and therefore a performance difference between individuals and organisations are required to respond to these differences. Many employees are now looking for more than just remuneration and organisations need to understand this quest in order to assist their staff to have a better balance.

Rewards based on organisational performance

Due to increasing diverse workforces in NZ, their opinion was related to the area of organisational performance. Between 2000 (actual) and 2010 (predicted) there was an increase of only 6% compared to the actual in 2010 (18.3%) and the predicted percentage for 2020 (41.6%) resulting in a 23.3% increase in importance, according to the respondents. The respondents of 2000 predicted very closely the importance of organisational performance. There is less than 4% difference in what they predicted for 2010 and what the actual figure was for 2010. It can be deduced that employers and also HR practitioners do not really understand the importance of rewards based on organisational performance. Their prediction for 2020 is less than 50% of the respondents (only 41.6%) regard this as important or critical for success. It is really alarming and HR practitioners and managers should take note of this careless attitude towards success of the business or otherwise it is a matter of them discarding the importance of teamwork, loyalty, employee engagement and empowerment of employees in the workplace. Organisations' responses to employees' needs may range from providing rewards other than monetary such as work arrangements to addressing employees' growing desire to have more family-friendly working environments.

Establishing a reputation as an employer of choice

Respondents were asked to give a response whether their organisation is an employer of choice. There was a 10% lower figure given for the actual figure in 2010 as what was predicted (48.5%) for 2010. It seems that organisations would establish themselves as an employer of choice for the future (65%) as they experience the lack of skills attributes and knowledge among their employees if they are not the employer of choice. Employees only have to visit the organisation's website to determine if their organisation is offering the

equivalent as other employers. It is always good if employees compare their rewards with similar organisations. Employees leaving an organisation now place their negative experiences or positive experience on the social media, Facebook and others, and employers / organisations are compared or measured by the public opinion of ex-employees or current employees. It is one thing to recognise the need to be the employer of choice, however it is quite another thing to have the rewards on the table for the employees and what they really experience working for an organisation.

Benefits and services

This question was designed to establish the extent to which organisations, in other words employers and managers provide benefits and services to their employees. Organisations in New Zealand are behind most organisations in the rest of the world providing medical assistance, retirement benefits and so on (Marsden, 2011; Nel et al, 2012). The research outcomes for this question confirm that in 2000 only 8% of the respondents regarded this as important and even the prediction to 2010 was a mere 8%. The actual figure for 2010 was double (16.7%) but they realise that employees will be more demanding in the future and predicted almost a three-fold increase to 43.3% to 2020. The increasing global nature of competition requires that organisations use all of their available resources to survive and to succeed (Sheehan, 2005). The emphasis on human resources and their value add in an organisation is of the utmost importance for success.

Employee participation and empowerment

This question was put to the respondents to determine what the involvement of their organisation's employees are in the decision making process and to what extent are they empowered and do they participate in the running of the business. In a study done by the SHL Workers and Good Management (Hopkins, 2012) it was found that 36% of managers regard their participation and involvement in the strategic direction of the organisation as part of their job. The study further revealed that it is not just monetary rewards but include responsibility, more control (empowerment) and more of a say in their work they are doing. Professional development, recognition for doing a good job is not everything and 67% of their respondents expect more money as rewards for being part of decision making and more responsibilities.

The respondents in our research project responded in 2000 with a mere 3% that acknowledged participation and empowerment and a huge increase to 45% was predicted for 2010. The actual figure for 2010 was 10% lower than predicted (35%) and for the future (2020) the figure is up by 36.7 % to 71.7%. It can be deduced that HR practitioners and employers know that it is important for employees to participate but they just don't want to "share" control (empowerment) with their employees as yet.

RECOMMENDATIONS FOR HR PRACTITIONERS AND EMPLOYERS

Concrete recommendations are proposed in this section, even though a very high level of employee participation and empowerment (71.7%) are evident in the results, the second highest prediction for any of the six themes, for 2020, used in this paper along with employee engagement (81.6%).

- They will have to be the change agents and leaders with the development and implementation of a new rewards system.
- Individual performance is important for the respondents therefore a definite reward system for individual performance should be developed and implemented.
- Employer of choice was rated at 65%. HR practitioners should assist employers to ensure that the needs of employees are met as far as possible and that feedback received from employees is taken seriously and something positive gets done about it.
- Employers and HR practitioners should use the talents of people from various backgrounds, experiences and cultures and engage them in decision making on certain levels and to successfully take part in aligning organisational strategies and performance with individual performance.

CONCLUSIONS

Findings indicate that the engagement and empowerment of employees has gained great momentum in NZ. In 2000 the actual figure was 27.3% compared to the actual figure in 2010 of 68.4%. A further 13.2% was predicted to 2020 to a total of 81.6%. Individual performance plays a significant role in the success of a business with a 19% increase since the 2000 study to the actual of 2010 while organisational performance increased with less than 10% in the actual responses for the two periods when the studies were executed. The employer of choice increased with only 6% for the same period while benefits and services doubled. Therefore it can be deduced that benefits and services for employees are critical for success. Employee participation and empowerment is up by the biggest margin of 32% and it confirms that employees want to be more involved in the day-to-day running of the organisation and that they would love to have more responsibilities even if there is no increase in pay but other rewards or benefits.

The six themes show similar increases for roles, goals and activities for employers and HR practitioners in New Zealand. The most significant result is employee participation and engagement, and recommendations were made in the previous section. A new kind of HR practitioner as well as a business manager and employee can be expected in successful organisations in the future adding sustainable value.

A very useful remuneration system was developed for use by employers and HR practitioners (Figure 1). Similarly a model for designing and implementing a reward system (Figure 2) was developed depicting the steps to be followed for successful implementation of a remuneration system.

REFERENCES

- Boxall, P. (1995). *The challenge of human resource management: Direction and debates in New Zealand*. Auckland: Longman Paul.
- Burchell, N. (2001). *2000 to 2010: Future directions for HR in New Zealand*. Auckland: Unitec Institute of Technology.
- Chavan, M. (2009). The balanced scorecard: a new challenge. *Journal of Management Development*, 28(5), 393-406.
- Drucker, P. F. (2006). What executives should remember. *Harvard Business Review*, 84(2), 144-152.
- Du Plessis, A.J. (2009). An overview of the influence of globalisation and internationalisation on domestic Human Resource Management in New Zealand. *International Review of Business Research Papers* 5(2), March: 1-18.
- Du Plessis, A. J., Frederick, H. (2012). Effectiveness of e-recruiting: empirical evidence from the Rosebank business cluster in Auckland, New Zealand *Science Journal of Business Management* ISSN: 2276-6367, 12 (3) 2012
- Du Plessis, A. J., Paine, S. Botha, C.J. (2012). The Role of Human Resource Practitioners Maintaining Sustainability in Organisations: Some Empirical Evidence of Expectations, Challenges and Trends. *International Journal of Contemporary Business Studies*, 3 (4) April: 16-35
- Du Plessis, A.J., Frederick, H. (2010). Local Ontologies and Epistemologies of Leadership in the Rosebank Business Precinct of Auckland, New Zealand. *Interdisciplinary Journal of Contemporary Research in Business*, November, 2 (7): 10-22
- Du Plessis, A.J. (2010), International Human Resource Management: an overview of its effect on managers in global organisations. *Interdisciplinary Journal of Contemporary Research in Business*, August, 2 (4): 178-192.
- Härtel, C. E. J., & Fujimoto, Y. (2010). *Human resource management: Transforming theory into innovative practice*. 2 nd ed Australia: Pearson Education.
- Hopkins, L. 2012. Are your employees satisfied with their remuneration? *HRM on-line editor, e-magazine*

Institute of Personnel Management New Zealand. (1997). Professionalism in personnel: The 1997 survey of the HR profession. *Human Resources*, 2(5).

Institute of Personnel Management New Zealand. (1994). Human resources priorities for competitive advantage. 1994-2000. The IPM survey report. Auckland: New Zealand: Institute of Personnel Management New Zealand

Jørgensen, H. H., Owen, L., & Neus, A. (2009). Stop improvising change management! *Strategy & Leadership*, 37(2), 38-44.

Marsden, M. 2011. Employee retention: is remuneration as important as you think? *New Zealand's magazine for human resources professionals* 16 (1) April/May

Paine, S. 2008. *The emerging role of HR practitioners' expectations, challenges and trends.* Unpublished Master dissertation, Unitec New Zealand

Nel P.S., Werner A., Du Plessis A.J., Fazey M., Erwee R., Pillay S., McKinnon B., Millett B. and Wordsworth R. (2012), *Human Resource Management in Australia and New Zealand.* Oxford University Press: Melbourne, Australia.

Nel, P. S., du Plessis, A. J., (2011). Unpublished Report on Human Resources Priorities for New Zealand from 2010 to 2020 onwards. Unitec New Zealand

Rudman, R. (2010). *Getting the right people. Effective recruitment and selection today.* New Zealand, CCH New Zealand Ltd.

Stone, R. J. (2011). *Human resource management* (7th ed.). Australia: John Wiley & Sons.

Wood, J., Zeffane, R., Fromholtz, M., Wiesner, R., Morrison, R & Seet, P. (2013) *Third Australasian edition. Organisational Behaviour: core concepts and applications.* John Wiley and Sons, Australia, Pty, Ltd.

Youngman, P. (2011). Show me the money. *Human resources: New Zealand's magazine for human resources professionals* 16(1) April/May

A STUDY ON THE INTERNATIONAL POSITION, AND OCCURRENCE, OF BRIDE ABDUCTION

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ABSTRACT

In modern day society it is difficult to comprehend that a phenomenon such as bride abduction, or bridenapping, still exists. In a time where human rights are shouted from the rooftops, young women, from as young as twelve years old, are forcefully taken from their homes and forced to marry a man whom they often have never seen before in their lives. This is an introductory paper discussing this phenomenon as an international practice based on literature studies to compare the various bridenapping practices and procedures. The aim of the paper is to raise awareness of the existence of bridenapping in modern society, and to use a comparative approach to find solutions that will lead to the eradication of bride abduction.

INTRODUCTION

Bride abduction, otherwise known as bride-kidnapping or bridenapping, is when a woman, usually a virgin under the age of 25, is abducted with the intention to force her into marriage with a man she would not consent to under normal circumstances. Victims of bride-kidnapping can be as young as 12 years old. The abduction is carried out by an individual, or a group of men organised by the intended groom. The girl is then kept against her will at the house of the groom, or his family.

Oftentimes the girl is raped repeatedly by the man who wishes to marry her, ruining the girl's reputation and making her prospects of marrying someone else at a later stage impossible. Because of the forcible rape, and the loss of virginity, the victim's family often agrees to the forced marriage to save the family's honour and the girl's reputation. Even if the girl is not actually raped, and remains a virgin, the mere possibility that she is not a virgin anymore is sufficient to destroy her chances of ever marrying someone else.

REASONS FOR THE OCCURRENCE OF BRIDE ABDUCTION

Various circumstances might lead to bride-kidnapping. These circumstances differ from region to region. Many groups which take part in this phenomenon do so as part of their culture and traditions. Other perpetrators do so on religious grounds, whilst still others do so because of a mistaken believe in the mythical healing powers of having intercourse with a virgin.

Bride abduction primarily takes place in poverty stricken communities where the abductor does not have the money to pay a dowry to the woman's family. The abductor may also not be socially acceptable as a suitable husband in the eyes of the woman's family due to a variety of reasons, such as lower social standing, poverty, disease or previous criminal behavior.

The majority of regions where bridenapping is practiced are patriarchal societies where women have very few, or no rights as individuals at all. In these societies there are oftentimes a strong social stigma surrounding extra marital sex, pregnancy and births. In these patriarchal societies women and children work for the family as free laborers. By abducting the woman the man also does not have to pay economic compensation to the woman's family in order to marry her.

CONSEQUENCES OF BRIDE ABDUCTION

Once a girl has been kidnapped to force her into marriage there are various consequences of this abduction and consequent forced marriage which has an effect on the victim's life. In many cases the victim is not only the victim of kidnapping and a forced marriage, but also the victim of domestic violence and spousal rape throughout the marriage. The victim is not only subjected to assault by her husband, but also her family-in-law.

For girls who planned to qualify themselves on a professional level, these dreams are destroyed by the bridenapping, as the woman is now forced to work for the husband and his family without any compensation. The woman also does not usually have a say in whether she wants children, when or even how many. These decisions are made by the husband, as the head of the household. If the husband tires of her, he can force her to leave the house, and her reputation is once again tarnished, as she did not meet the requirements of a good wife.

Bridenapping also increase female impoverishment, which makes it very difficult for the victim of the abduction to leave the abductor and the marital home, as she has no means of supporting herself and her children, even if she is in a position to take them from her 'husband'.

Once a woman has been abducted and forced into marriage this usually leads to the deprivation of other fundamental human rights as well, such as the right to freedom of movement, the right to fair labor practices and the right to own property.

THE INTERNATIONAL POSITION ON BRIDE ABDUCTION

Bride abduction is not an internationally accepted ritual. Various international treaties and conventions attempt to protect girls and young women against this phenomenon. The United Nations Universal Declaration of Human Rights states in Article 16: "*marriage shall be entered into only with the free and full consent of the intending spouses*".

In 1979 the UN General Assembly adopted the Convention on the Elimination of All Forms of Discrimination against Women. Bride abduction was again declared unacceptable in Article 16, which states: "*states parties shall take all appropriate measures to eliminate discrimination against women in all matters relating to marriage and family relations and in particular shall ensure, on a basis of equality of men and women: a) The same right to enter into a marriage, and b) The same right freely to choose a spouse and to enter into marriage only with their free and full consent*".

The Declaration on the Elimination of Violence against Women recognised the urgent need for the universal application of rights and principles with regard to equality, security, liberty, integrity and dignity to women. Article 1 reads as follows:

"For the purposes of this Declaration, the term 'violence against women' means any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life."

Article 21 of the African Charter on the Rights and Welfare of the Child protects children, under the age of 18, in African countries against the practice of bride abduction, by stating:

"1. States Parties to the present Charter shall take all appropriate measures to eliminate harmful social and cultural practices affecting the welfare, dignity, normal growth and development of the child and in particular:

*(a) those customs and practices prejudicial to the health or life of the child; and
(b) those customs and practices discriminatory to the child on the grounds of sex or other status.*

2. Child marriage and the betrothal of girls and boys shall be prohibited and effective action, including legislation, shall be taken to specify the minimum age of marriage to be 18 years and make registration of all marriages in an official registry compulsory."

The rights of women in Africa are protected through the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (The Maputo Protocol). Article 5 of the Maputo Protocol protects African women against any harmful practises. This includes internationally unacceptable practises. Article 5 states:

" States Parties shall prohibit and condemn all forms of harmful practices which negatively affect the human rights of women and which are contrary to recognised international standards. States Parties shall take all necessary legislative and other measures to eliminate such practices..."

Women in Africa are further protected against actions amounting to bridenapping by Article 6 of the Protocol:

" States Parties shall ensure that women and men enjoy equal rights and are regarded as equal partners in marriage. They shall enact appropriate national legislative measures to guarantee that no marriage shall take place without the free and full consent of both parties."

INTERNATIONAL OCCURRENCE OF BRIDE ABDUCTION

Unfortunately all these treaties, conventions and protocols do not prevent the phenomenon of bridenapping to continue internationally. The majority of communities where bridenapping occur on a regular basis are minority tribes in remote rural areas, but it also occurs in developed countries, such as the United States and across Europe, albeit in exceptional cases.

United States of America

In recent years there were two reported cases of bridenapping in the USA, those of Elizabeth Smart and Jaycee Dugard. The 14 year-old Smart was abducted from her home in Salt Lake City, Utah, on 05 June 2002 by

Brian Mitchell. After being abducted by Mitchell, his wife and accomplice, Wanda Ileen Barzee, prepared Smart for a 'marriage ceremony'. Over the course of the next 9 months, Elizabeth Smart was repeatedly raped by Mitchell as his 'second wife'. Barzee was convicted of her role in the abduction and sentenced to 15 years imprisonment in November 2009. Mitchell was convicted of federal kidnapping and sentences to life imprisonment in 2011.

Jaycee Lee Dugard was kidnapped whilst walking to the school bus stop on 10 June 1991, at the age of 11 in South Lake Tahoe, California. Dugard was abducted by Phillip Garrido and his wife Nancy Garrido. The kidnappers kept Dugard in a concealed area behind their house where she was the victim of repeated rape and sexual assault. Jaycee Dugard bore two daughters during this time, fathered by Phillip Garrido. On 26 August 2009 Dugard was identified after an investigation into suspicious behaviour of a man accompanied by two women on the campus of the UC Berkeley campus. A staff member of the university alerted Garrido's parole officer, which lead to Garrido's interrogation where he admitted kidnapping Dugard. During questioning Dugard displayed signature signs of Stockholm syndrome. She formed a close bond with Phillip Garrido during her period of captivity. After more than 18 years Jaycee Lee Dugard and her two daughters were reunited with her family. Both her kidnappers pleaded guilty to the kidnapping of Dugard as well as sexual assault. In June 2011 Phillip Craig Garrido was sentenced to 431 years imprisonment, and his wife, Nancy, to 36 years to life imprisonment. At the sentencing hearing Dugard's mother read the following statement written by Jaycee Lee Dugard:

"I chose not to be here today because I refuse to waste another second of my life in your presence. I've chosen to have my mom read this for me. Phillip Garrido, you are wrong. I could never say that to you before, but I have the freedom now and I am saying you are a liar and all of your so-called theories are wrong. Everything you have ever done to me has been wrong and someday I hope you can see that. What you and Nancy did was reprehensible. You always justified everything to suit yourself but the reality is and always has been that to make someone else suffer for your inability to control yourself and for you, Nancy, to facilitate his behavior and trick young girls for his pleasure is evil. There is no God in the universe that would condone your actions. To you, Phillip, I say that I have always been a thing for your own amusement. I hated every second of every day of 18 years because of you and the sexual perversion you forced on me. To you, Nancy, I have nothing to say. Both of you can save your apologies and empty words. For all the crimes you

have both committed I hope you have as many sleepless nights as I did. Yes, as I think of all of those years I am angry because you stole my life and that of my family. Thankfully I am doing well now and no longer live in a nightmare. I have wonderful friends and family around me. Something you can never take from me again. You do not matter anymore." —Jaycee Lee Dugard, June 2, 2011

Kyrgyz Republic (Kyrgyzstan)

The Kyrgyz Republic is a former Soviet Republic situated in Central Asia. The country has a population of approximately 4.7 million people. 58% of the population are ethnic Kyrgyz, living in the mountainous rural areas of the country. Bridenapping most often occur under the ethnic Kyrgyz people, although it is not unheard of under the other ethnic groups. Under Soviet rule the phenomenon of bride abduction decreased dramatically, but after independence it increased again, possibly as a way of re-introducing previous traditions lost under the Soviet regime. There is however no consensus under the people of the Kyrgyz Republic on whether bridenapping is a tradition, or not. The claim that bridenapping is a Kyrgyz tradition are mostly made by men.

Although Article 155 of the Kyrgyz Criminal Code states that '*forcing a woman to marry or to continue a marriage or kidnapping her in order to marry her without her consent*' is punishable by a fine or imprisonment of up to 10 years, it is estimated that as many as 50% of ethnic Kyrgyz women are married through the process of *ala kachuu*, of which about two thirds took place without the woman's consent. *Ala kachuu* is defined as the process of bridenapping (directly translated: to take and run away), or getting married by means of abducting the woman. Islam also prohibits marriage without the consent of the parties involved, but even this religious law does not stop some men in this mainly Muslim country from following the practice of bridenapping.

Unfortunately the legislation prohibiting bride abduction and non-consensual marriage are poorly enforced. According to the Women's Support Centre (WSC) in Bishkek, Kyrgyz Republic, only 1 in 700 cases is pursued by the justice sector, and only 1 in 1 500 cases of abduction results in a judicial sentence. Some victims actually obtain protection orders against their abductors from the police, but in practice these orders offer vary little protection, as the police do not enforce the protection orders, thereby discouraging women to do something about the infringement of their fundamental human rights. Victims of bridenapping have the best chance of being assisted by NGO's, who largely depend on donations to effectively provide support to these women. For as long as bridenapping and the domestic violence and sexual assault that follows this phenomenon goes unpunished in the Kyrgyz Republic, it will continue to occur.

Zabila Matayeva joined the WSC after her sister, Cholpon, was stabbed to death by her husband. Cholpon was the victim of bride abduction at the age of 19. After staying in this 'marriage' for 10 years Cholpon demanded a divorce from her husband as a result of regular physical assault. This is when he killed her. Matayeva explains why her sister stayed in this situation for such a long time:

"She was lost. Cholpon thought her life would end if she left the [groom's] house. This would bring shame on her and the family. She would need to leave the village. So she stayed." - Zabila Matayeva Sister of bride-kidnapping victim

Georgia

In Georgia bridenapping occurs mostly in ethnic minority communities such as the Samtskhe-Javakheti. Bridenapping is a custom that occurs either voluntary or involuntary. Voluntary bridenapping takes place where there is consent prior to the kidnapping and marriage. Involuntary bridenapping takes place where the bride is abducted by the groom, often with the help of his friends and family. This may result in a hostage situation, detention, assaults and even rape.

Most bridenapping cases are part of an elaborate courtship process where the brides agree in advance to the so-called kidnapping to avoid parental opposition to the marriage. In this case no crime has been committed and it is only seen as a cultural ritual. It is estimated that approximately 20% of the kidnapping cases are real and committed against the wishes of the women.

Bridenapping has been practised in Georgia for centuries, but international and national laws in Georgia now prohibit this practice. Although bridenapping is clearly a case of human rights violations against women depriving them of their freedom and right to choose their partners in marriage, it is still

permitted in society. Bridenapping is still seen by society as part of tradition and therefor many cases go unreported. Despite both national and international legislation being in place it seems as if this is insufficient as the concepts of honour and shame and the tradition are still regarded by society as being paramount.

Georgia has joined all the UN human rights instruments that underline the principle of equality and the rights of women. Georgia also signed the human rights protection documents of the Council of Europe in 1999.

The Constitution of Georgia (1995) in Chapter 2, protects human rights and freedom. Article 17.2 prohibits cruel, inhuman or degrading treatment of a human being. Article 18.2 prohibits the restriction of personal liberty without a court order.

The Criminal Code of Georgia (2000) also criminalises acts that violate human rights and liberties such as assault and battery, torture, coercion and threatening. It also criminalises sexual crimes such as rape, sexual abuse and coercion into sexual intercourse or other acts of a sexual nature.

Previously under the Soviet Union the Criminal Code of Georgia also dealt specifically with bridenapping. After the fall of the Soviet regime this provision was again enacted in the Criminal Code of Georgia. Article 143 thereof describes bridenapping as illegal imprisonment but there is no legislation presently that criminalises the act of bridenapping.

The reality is that there is a discrepancy between the law on paper and the actual enforcement thereof in real life. In Georgia family units and their standing in society is paramount. If a woman admits or reports sexual violence against her during the process of bridenapping she risks losing the support of kinship and damaging her honour and that of her family and their social status. The majority of victims who are raped or are victims of attempted rape therefore don't report these sexual abuses and crimes for fear of bringing shame on their families.

In Georgia, a deeply patriarchal society, women are treated as a commodity. Some male head figures of the family even claim ownership of a woman and her body. In contemporary Georgian society, public discussions of bridenapping are prohibited. It is seen as an age old practice rather than a "problem".

AFRICA

There are numerous countries in Africa that still practice bride abductions even though there have been human rights groups trying to eradicate this age-old custom. The countries in Africa most affected by this practice are Rwanda, Ethiopia, Kenya, Somalia and South Africa. The consequences that these women face after being abducted to be a bride are marital rape, unwanted pregnancies, domestic and verbal abuse as well as sexually transmitted diseases. Bride abduction is a symptom of an underlying problem, gender based inequality. Inequality between men and women are found in all parts of life in many African countries.

South Africa

Ukuthwala (translated: to carry) is a custom originally used by the Xhosa tribe, although various other groups such as the Sotho and Mpondo clan have also adopted this practice. The (original) main aim of *ukuthwala* is to force the girl's family to enter into negotiations for the conclusion of a customary marriage. The custom of *ukuthwala* is generally the same as bridenapping in other countries. It will appear that the girl is resisting the abduction, but usually it is in fact not the case. The girl is normally a willing participant. If the parents of the girl do not go after her to bring her back, it is a sign that they agree with the customary marriage that will follow. The family will accept lobola (an amount of money or live stock) from the groom in exchange for their daughter. It is not part of the custom to seduce the girl, if the man seduces the girl he will have to pay a seduction beast over and above the consented lobola.

When *ukuthwala* happens with the consent of the girl, it is the proper use of a traditional custom as opposed to when it happens against her will. Then it will be abduction and therefore a crime. It has also been suggested that if the parents consented to the abduction it will not be a crime.

The reasons for *ukuthwala* vary from avoiding the expense of a wedding to forcing the father to consent to the marriage between the couple. Another reason for using this practice by older men is the belief

that you can be cured of HIV/AIDS if you have sex with a virgin, usually a young girl. These young girls become child brides. Sometimes these bride abductions happen with the consent of the parents or guardians.

Ukuthwala is still being practiced in remote villages in the Eastern Cape, Kwa-Zulu-Natal and the Western Cape. In 2009 reports of 20 Eastern Cape school girls who had to leave school to be part of the traditional custom, *ukuthwala* were met with outrage. Traditional leaders had rules in terms of which this custom was practiced. Presently the regulation of this custom has changed for the worse. The traditional leaders have raised concerns that abducting a girl of 12 is not part of the cultural practice they know. It was also stressed that *ukuthwala* was an old custom that was now being wrongly practised in several parts of South Africa.

South Africa ratified various international human rights instruments. Bridenapping (a man taking an adolescent girl for marriage without consent) for any reason is a crime. If a person exploits a child sexually he will face a fine and imprisonment of up to 20 years. South Africa unfortunately has a low conviction rate for rape and child abuse.

The “TOGETHER WE ARE THE SOLUTION”-campaign was launched in May 2009. The traditional leaders of these affected areas, as well as the government, joined forces to get the campaign of the ground. The aim of the campaign is to eradicate the practice of bridenapping with girls under the age of 18.

Somalia

Somalia has a very bad reputation when it comes to child labour and child abduction. Bridenapping is being practised by various ethnic groups and is maintained by cultural and religious beliefs. One of the main reasons for child/bride abduction is to marry a virgin because of the belief that she will be free from diseases.

When a girl is abducted, she is considered to be the property of the husband and she must obey his wishes. Even after the husband dies, she will remain the property of his family. She can even be forced to marry another man who is part of her husband’s family. The family’s oldest living male will have the right to decide her fate.

Girls as young as 10 years of age are being kidnapped to be married. Some girls are being kept as slaves, should they try to escape it will only lead to more abuse and rejection from the community. As in some of the other countries where bridenapping occur the family of the girl often consent to the kidnapping as they will then receive an amount of money. They will consent without considering the girl’s future. They will expect the girl to stay with her husband, even though she is treated badly.

The war in Somalia exacerbated the situation. Tribal chiefs and war soldiers would kidnap women and girls and they would be forced to be wives for the whole group of men. This practice hinders social progress. These women do not learn to speak for themselves, or make their own decisions.

The United Nations Entity for Women states that “*All governments are obligated under the international law to undertake action to end harmful practices*”. The Somali Family Code does not protect the victims of bridenapping. According to the Social Institutes and Gender Index, traditional practices are being used, even though it leads to human rights violations instead of using the Somalian law.

Research shows that Rwanda, Kenya and Ethiopia have similar challenges where bridenapping is concerned.

RECOMMENDATIONS AND CONCLUSION

Bridenapping is a vicious cycle of poverty, powerlessness and suffering. The international community agrees on the need to address bride kidnapping, but not a lot of progress have been made. The main problem is the beliefs of these communities when it comes to their traditions. Tradition and culture are very important to a healthy and happy society, but if that same tradition undermines the basic rights of the most vulnerable members of that society, the question must be asked whether that tradition has real value and for whom.

It is clear that legislation is currently not the most effective way to combat bridenapping. The government needs to set the example of what is acceptable behaviour, by formulating policies to eradicate this practice. If the government neglect to protect women and children, it should be held accountable by the international community. If the government is serious about changing the fate of these women, it should reconsider its treatment of women in general and not just when it comes to bridenapping. The respective governments should attempt to address the woman and child abuse that is taking place through the practice of bridenapping. Specific funding should be dedicated to combat woman and child abuse in general and bridenapping, specifically. The authorities should apply the law applicable to human rights and punish the perpetrators accordingly. Building relationships with other countries also affected by bridenapping is highly recommended. The different countries could benefit from sharing each other's programmes and policies for best practices. A network between the victimised women can be created.

Awareness campaigns specifically targeting these communities engaging in bridenapping are crucial to successfully eradicate this practice. These campaigns should highlight the human rights of women and children. The conditions in which bridenapping is flourishing should be changed from the ground up. Community leaders should be educated in human rights and the violation thereof. Programmes should be implemented in schools, on how to treat women, the younger generation should be educated to demand change for their future. The "TOGETHER WE ARE THE SOLUTION" campaign launched in South Africa only focuses on girls under the age of 18, this campaign should be broadened to include all women forced into marriage, irrespective of their age. The only way that bridenapping can be dealt with effectively would be when non-governmental organisations, human rights groups and the governments work together with the communities where bridenapping is still practiced. These women and children do not have a voice. If their government, their community and their family are not prepared to protect them, who will?

REFERENCES

2010 Human Rights Report: Kyrgyz Republic by the US Bureau of Democracy, Human Rights, and Labor. Available at <http://www.state.gov/j/drl/rls/hrrpt/2010/sca/154482.htm> . Accessed on 08 May 2013

African Charter on the Rights and Welfare of the Child. Articles 1 and 2.

Declaration on the Elimination of Violence against Women. Article 1.

Elizabeth Smart Kidnapping. Available at http://en.wikipedia.org/wiki/Elizabeth_Smart_kidnapping . Accessed on 08 May 2013.

Kidnapping of Jaycee Lee Dugard. Available at: http://en.wikipedia.org/wiki/Kidnapping_of_Jaycee_Lee_Dugard . Accessed on 08 May 2013

Kleinbach, R. (2003). Frequency of Non-Consensual Bride Kidnapping in the Kyrgyz Republic. *International Journal of Central Asian Studies*. Vol 8

Klainbach, R. Ablezova, M., Aitieva, M. (2005). Kidnapping for Marriage (Ala Kachuu) in a Kyrgyz Village. *Central Asian Survey*. 24:2, 191-202

Kleinbach, R., Salimjanova, L. (2007). Kyz ala kachuu and adat: non-consensual bride kidnapping and tradition in Kyrgyzstan. *Central Asian Survey*. 26:2, 217-233

Mwambebe, L, Sloth-Nielsen, J. (2011) *Benign accommodation? Ukuthwala, 'forced marriage' and the South African Children's Act*. *Journal of Family Law and Practice* Volume 2.1 Spring 2011. 5-16

Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa. Article 5.

Stakeeva, B., Kartanbaeva, C., Djanaeva, N. (2011) Access to Justice for Victims of Bride Kidnapping in Kyrgyzstan. A study conducted by 'Forum of women's NGO's of Kyrgyzstan' with the financial support of OXFAM Novib as part of the project 'Women's access to justice in countries of Central and Eastern Europe and Central Asia', a regional initiative coordinated by KARAT Coalition.

The Convention on the Elimination of All Forms of Discrimination against Women. Article 16.

United Nations Universal Declaration of Human Rights. Article 16.

2010 Human Rights Report: South Africa by the US Bureau of Democracy, Human Rights and Labor. Available at <http://www.state.gov/j/drl/rls/hrrpt/2010/af/154370.htm> Accessed 8 May 2013

Han, R. (2013) *Bridenapping: An illegal but acceptable practice of human rights violation*. Available at http://www.academia.edu/2462889/Bridenapping_An_illegal_but_acceptable_practice_of_human_rights_violation Accessed on 8 May 2013

Matshili, E. (2011) *Vows by force: Bride kidnapping in Somalia* http://www.consultancyafrica.com/index.php?option=com_content&view=article&id=814:vows-by-force-bride-kidnapping-in-somalia&catid=91:rights-in-focus&Itemid=296

DEVELOPING APPROACHES TO COMBAT CYBER BULLYING THROUGH A COMPARATIVE STUDY BETWEEN THE UNITED KINGDOM, AUSTRALIA AND SOUTH AFRICA

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ABSTRACT

Information and communication technology has changed our modern day lifestyle forever. Information technology has impacted on education, more especially the almost immeasurable quantity of information available on the internet. Cyber bullying is a multidimensional phenomenon and as such poses a challenge for different international role players to develop an approach which will address all aspects of cyber bullying. All countries should implement legislation preventing and eradicating cyber bullying. This paper will take the form of a comparative study of the different aspects of cyber bullying in the United Kingdom, Australia and South Africa to determine the approach of these countries and the success of the various approaches. In conclusion the author will make recommendations regarding the South African situation.

INTRODUCTION

The term “cyber bullying” was initially defined by Bill Belsey, a Canadian author and anti-bullying activist, as “*the use of information and communication technologies to support deliberate, repeated and hostile behaviour by an individual or group, that is intended to harm others.*”

There are various other definitions of cyber bullying most of which include acts involving bullying and harassment through the use of information and communication technologies. Cyber bullying is committed in various ways for example through text messages, picture or video clips, mobile phone calls, emails, chat forums, instant messages, social networking sites such as Facebook and Twitter.

Cyber bullying came into being as a result of the evolution of electronic communication. It is a new and insidious form of bullying that has slowly poisoned the internet and electronic media. In 2007 there were already 900 000 reports of cyber bullying that were reported by secondary students as was reported by the US Department of Education in 2010. The technology and electronic communication has allowed bullies to be cunning and act from a distance, outside of schools and sometimes under the protection of anonymity.

It is true that children have been bullying each other for generations but the present generation are empowered by technology to expand their reach and the extent of their bullying. This phenomenon is called and is defined amongst others as “wilful and repeated harm inflicted through the use of computers, cell phones and other electronic devices. An enhanced communication social network has impacted greatly in schools and in the workplace. There has been an increase of homicides and suicides which can be related to cyber bullying.

What is more is that online victimisation has also extended to adults and is no longer limited to minors only. The development of online interaction has brought about new forms of offending where offences such as harassment and “stalking” are a daily occurrence on the internet.

Cyber bullying causes emotional and physical damage and requires that society take legal action. Bullying has taken on a whole new dimension where a few hurtful remarks communicated in person can now be communicated to multimedia interaction via multiple electronic sources.

INTERNATIONAL POSITION

There can be no doubt that cyber bullying is a burning issue in many countries across the globe. Countries affected by cyber bullying will have to develop legislation and amend legislation and measures to combat this rising evil and to keep abreast of the ever evolving electronic communication. Failure to do so will result in a gross intrusion of, and violation of human rights.

Internationally cyber bullying is recognised as a serious threat to human rights. The Convention on the Rights of the Child (UNCRC) 1989 is the first legally binding international instrument to incorporate and protect human rights. Human rights are fully recorded in 54 articles of the Convention and two optional Protocols.

The Convention protects the rights of children. It guarantees basic rights such as health care, education, legal, civil and social services. Governments that uphold the obligations of the Convention have committed themselves to the protection of children's rights and are accountable for this commitment before the international community. All state parties to the Convention must develop policies and take actions to implement same in the best interests of the child.

Article 19.1 of the UNCRC states that "*State Parties shall take all appropriate legislature, administrative, social and educational measures to protect the child from all forms of physical or mental violence, injury or abuse, neglect or negligent treatment, maltreatment or exploitation, including sexual abuse, while in the care of parents, legal guardians or any other person who has the care of the child.*"

In 2011 the UNCRC expanded Article 19 to include acts committed via information technologies, such as cellular phones and social networking sites such as Facebook and Twitter. Also included is psychological bullying. A number of countries have introduced legislation to criminalise and punish acts of cyber bullying.

The (UNCRC) has acknowledged the seriousness of cyber bullying and the children are the perpetrators thereof. The UNCRC therefor requires that the response to such incidents be proportionate to the circumstances and nature of the acts of cyber bullying by the child. A retaliating approach towards the children should be avoided at all cost.

On November 2003 the Convention on Cybercrime was signed by the Council of Europe and non-member states Canada, South Africa and the United States. In terms of this agreement all participating parties must enact legislation that facilitates investigation and prosecution of crimes committed through the internet.

There are also non-profit organisations that combat cyber bullying and cyber stalking. They advise victims, provide awareness through campaigns and report offences to the police. In 2008 Wired Safety's International Stop Cyber Bullying Conference took place. Some of the issues that were discussed were parent's legal responsibilities, the need for more legislation and the difference between free speech and hate speech. Adult behaviour was classified as stalking harassment and that of children as bullying harassment.

Cyber bullying can be combatted through intervention, counselling and education of teachers and parents. Students should also be thought how to avoid becoming victims of cyber bullying and cyber stalking.

THE UNITED KINGDOM

In terms of UK law cyber bullying, as in South Africa and Australia, is not a specific criminal offence. There are however criminal legislation that applies in cases of harassment and threatening behaviour, in particular threatening and menacing communications.

Cyber bullying activities can be criminal offences under a range of different laws including the Protection from Harassment Act 1997 which contains both criminal and civil provisions, the Malicious Communications Act 1988, Section 127 of the Communications Act 2003, The Education and Inspections

Act 2006 (EIA 2006), The Crime and Disorder Act 1998 and the Public Order Act 1986. The age of criminal responsibility in the UK starts at 10 years.

The Protection from Harassment Act 1997 is applicable where there are repeated incidents of harassment. Section 1 thereof prohibits behaviour, amounting to harassment of another. Section 2 creates a criminal offence and Section 3 provides a civil remedy for breach of the prohibition on harassment referred to in Section 1. Section 4 creates a more serious offence of someone causing another person to fear that violence will be used against them on at least two occasions. A civil court may grant an injunction to restrain a person from conduct which amounts to harassment. Upon conviction of an offence in sections 2 or 4, the court may also issue restraining orders to protect the victim of the offence.

The Communications Act 2003 covers all forms of public communications. Section 127(1) defines an offence of sending a “grossly offensive, obscene, indecent or menacing” communication. Section 127(2) creates an offence where a person sends a message which that person knows to be false (or causes it to be sent) or persistently makes use of a public communications system, for the purpose of causing annoyance, inconvenience or needless anxiety.

The Education and Inspections Act 2006 contains provisions that deal directly with cyber bullying and empower teachers. Head teachers now have the power “to such extent as is reasonable” to regulate the conduct of pupils. This power can be exercised when the pupils are off-site or not under the control or charge of a staff member. This is very significant as cyber bullying often takes place out of school but can impact strongly on the school life of those pupils involved.

In terms of the Crime and Disorder Act 1998 an anti-social behaviour order can be obtained for cyber bullying. This is a civil order which prohibits a person from engaging in specific anti-social acts. Such an order can be made against any person above the age of 10 years where there is evidence that their behaviour caused, or is likely to cause one of the following acts to others: 1) harassment 2) alarm or 3) distress. If such evidence is placed before the court an order will be granted to protect a person(s) from further anti-social acts. To determine whether the conduct is anti-social in nature, the consequences and the effect thereof, or likely effect thereof, on a member or members of the community within which such acts take place, are measured and considered.

The order should be precise to prohibit the specific behaviour complained of, and also be proportionate to the legitimate aim of protecting the community from further abuse. Should such an order be breached it is a criminal offence and criminal penalties are then applicable.

The Public Order Act 1986 in Section 5 thereof makes it an offence to use threatening, abusive or insulting words, behaviour, writing, signs or other visual representation with the intent to cause harassment, alarm or distress.

The Obscene Publications Act 1959 makes it an offence to publish an obscene article. An article is obscene when the effect is such as to tend to deprave and corrupt persons who are likely to read, see or hear the matter contained or embodied in it.

Defamation is a civil remedy under the common law where the defendant commits a delict against the claimant/plaintiff. The Defamation Acts of 1952 and 1996 provide certain defences. Any published material that damages the reputation of an individual or an organisation inclusive of material published on the internet, will fall within the ambit of the Defamation Acts and would constitute a tort/delict.

A civil action for defamation can be brought by an individual or a company, but not by a public authority. The claimant will bear the onus to show that the material is defamatory. It is not necessary for the claimant to prove that the material is false. The burden of proof instead, lies with the defendant being the author/publisher to prove that what they have written is true.

It is now possible for an Internet Service Provider (ISP) to be liable for the content of sites which it hosts. This means that should an ISP receive a notice of complaint it should take such notice seriously and investigate it immediately.

Prevention strategies and activities are designed to support the whole-school community. The ‘whole-school community’ refers to learners, teachers, support staff, parents, school leaders, governors and

all the people providing support, including teaching assistants , break and lunchtime supervisors and extended school provision staff.

Pro-active measures can be taken by schools to help prevent cyber bullying and to reduce the impact should there be any such incidents. Schools are now required to have a clear policy on tackling all forms of bullying, which is owned, understood and implemented by the whole-school community. This can be used as a building block for prevention of cyber bullying and to review and update policies to ensure and maintain a safe and welcoming environment as a responsibility and function of the whole-school community.

An Anti-Cyberbullying Code was introduced which gives one seven important tips to protect oneself and friends from getting caught up in cyber bullying. The Code also gives advice on how to report cyber bullying when it happens. In short the 7 important tips are the following: Always respect others, think before you send, treat your password like your toothbrush, block the bully, don't retaliate or reply, save the evidence, and make sure you tell.

AUSTRALIA

In Australia the need to develop new laws dealing with cyber bullying intensified following the first criminal prosecution for cyber bullying in the Wilson case in 2011. This followed after two youths committed suicide in 2009 that were both the result of cyber bullying.

Studies in Australia to determine the prevalence of cyber bullying have revealed alarming statistics. A survey of 400 students in Victoria revealed that 30% of students have been a victim of cyber bullying. A study by Galaxy Research in 2008 on 300 children aged between 10 and 17 years found that 25% of the children were victims of cyber bullying. Another study of over 7000 young children revealed that the rates of cyber bullying ranged between 4.9%for year 4 students to 7.8% for year 9 students. The study further found that the prevalence rate was 2% higher for females as opposed to males.

Another study found that cyber bullying took place, primarily through instant messaging, mobile phones and social networking sites. From the studies conducted in Australia and the inconsistencies therein it has become clear that it is very difficult to measure the prevalence of cyber bullying in a community. Studies in Australia have shown that cyber bullying has the potential to become a major problem affecting young children in Australia. As a result of the ubiquity of mobile phones amongst young children in Australia, cyber bullying is mostly committed through the use of mobile phones. Another study revealed that an astonishing 94% of senior high school students indicated that they had experienced bullying using a mobile phone.

As far as criminal sanctions are concerned, Australia, like South Africa, has no specific criminal offences for cyber bullying but relies on a patchwork of generic offences to combat and prosecute these offences. As far as criminal liability is concerned in Australia, there have been arguments put forward that cyber bullying should be addressed through legislation that specifically criminalises the conduct.

Presently most jurisdictions have legislation proscribing conduct such as assault and harassment that may be relevant in relation to cyber bullying. Only the Commonwealth Criminal Code contains a number of serious criminal offences for engaging in conduct involving the use of telecommunication services that would satisfy any reasonable definition of "cyber bullying".

Some of the offences include the use of a "carriage service" which includes fixed or mobile phones, internet or intranet services with the intention to commit a serious offence. It is also an offence for a person to use a carriage service in such a manner that reasonable person would regard as being menacing, harassing or offensive. Furthermore it is an offence to use a carriage service to transmit, make available, publish or otherwise distribute material that directly or indirectly incites suicide.

The Commonwealth legislation is the best model available to prosecute cyber bullies. The States and Territories are content to use existing criminal laws rather than follow the US and draft specific anti-cyberbullying laws. The failure to draft anti-cyberbullying laws, can be attributed to the fact that there is a wide spread feeling that cyber bullying is a behavioural problem that should be dealt with by families and schools.

Amendments to Acts creating offences such as the amendment to the Crimes Act 1900 (NSW) where “a person, who assaults, stalks, harasses or intimidates any school student or member of staff of a school while the student or member of staff is attending a school, although no actual bodily harm is occasioned, is liable to imprisonment for 5 years “, does not address cyber bullying outside the school.

Australia has however designed a national cyber safety and cyber security education program, called Cybersmart. This program is managed by the Australian Communication and Media Authority (ACMA), as part of the Australian Government’s commitment to cyber safety.

The program provides information and education which empowers children to be safe online and was designed to meet the needs of children, young people, parents, teachers and library staff. It furthermore funds the “Outreach program” which offers free Internet Safety Awareness presentations to parents, students and teachers to encourage a consistent approach to cyber safety education between school and home.

SOUTH AFRICA

Very little is known about the true extent of cyber bullying in South Africa. What is alarming however is the fact that along with increased access to and usage of electronic communication technology, cyber bullying has increased dramatically.

This has resulted in the criminal abuse of the internet which in turn has created legal uncertainty as the criminal, civil and procedural laws in South Africa are inadequate to combat, investigate and successfully prosecute the commission of crimes involving the use of the internet. South Africa presently does not have specific legislation for cyber bullying to eradicate this offence and protect victims against cyber bullying.

Only in 2002 did South Africa promulgate legislation prohibiting certain conduct in cyberspace by means of the Electronic Communications and Transactions Act 25 of 2002. In South Africa very little research has been done on cyber bullying. As a result it is unclear how many children are victims of cyber bullying. The reality of cyber bullying was illustrated when in 2009 the Centre for Justice and Crime Prevention (CJCP) conducted a study amongst 1726 young people aged between 12 and 24 years. The study revealed that almost half of the respondents had experienced some form of cyber bullying. An interesting finding was that 69.7% of the respondents who commit cyber bullying had themselves been bullied indicating that there appear to be a correlation between bullies and victims of cyber bullying.

Cyber bullying is generally dealt with as harassment resulting in victims having to rely on remedies in the criminal and or civil law. The common law, criminal and civil law are applicable to both perpetrators and victims irrespective of their age and no distinction is made between cyber bullying (children) and cyber stalking (adults) as is the case in other countries.

Depending on the nature of the acts of cyber bullying the perpetrator may be criminally charged with common law offences such as extortion, assault, criminal defamation and *crimen iniuria*.

Extortion is committed when a person unlawfully and intentionally threatens to electronically distribute compromising images or information about another person unless the victim furnishes the perpetrator with an advantage of some sort.

Assault is committed when the perpetrator threatens the victim with the personal violence through use of the internet or other form of technology and the conduct inspires fear or belief in the victim that such personal violence is to take place to determine whether the conduct falls within the definition of assault the following subjective test is applied: Did the victim believe that the perpetrator intended to, and was able to carry out the threat?

Criminal defamation is committed both verbally and in writing when the publication of a matter seriously injures the victim’s reputation. It is a requirement that the defamatory conduct or words must have come to the knowledge of the victim. Defamatory remarks on social networking sites, in chat rooms, text messages, e-mails or instant messages to third parties amount to cyber bullying and will be prosecuted as criminal defamation.

Crimen iniuria is committed when a perpetrator unlawfully and intentionally violates the dignity or privacy of the victim. The test is both subjective and objective to determine if the victim's dignity has been violated. It is a prerequisite that the victim must be aware of the perpetrator's offensive behaviour and feel degraded or humiliated by it. It is however not required that the perpetrator's words or conduct should have come to the attention of people other than the victim.

The crime is also committed by communicating to somebody else a message containing, expressly or implicitly, an invitation to or a suggestion of sexual immorality or impropriety, or by sending indecent photos. The civil law also provides remedies to the victims of cyber bullying, the first being a peace order issued by a magistrate in terms of section 384(1) of the Criminal Procedure Act 56 of 1955. If a person has been the victim of threats of violence or use of abusive language, the victim may approach a magistrate on application. The magistrate may order that the perpetrator appear before him, and may also order that the perpetrator be arrested to ensure appearance before the magistrate.

After the enquiry, the magistrate may order the perpetrator to give recognisances with or without sureties to the amount of R2000 for a period not exceeding six months to keep the peace towards the victim and refrain from doing so again. The magistrate could order the perpetrator to pay the costs of the inquiry.

The second remedy provided for in the civil law is an application for an interdict in the Regional Civil Court or High Court restraining the perpetrator from committing or continuing a wrongful act. The complainant can also institute a civil claim for defamation and claim damages where he/she suffered injury to his/her dignity and/or good name. Such claim can be instituted in the District, Regional Civil or High Court depending on the claim amount.

The Child Justice Act 75 of 2008 which came into effect on 1 April 2010 deals exclusively with children. The purpose of the act is to create a criminal justice system for children who are in conflict with the law and are accused of committing offences. Furthermore the act determines the minimum age of criminal capacity of children (10-14) and also makes provision for securing the attendance of the child as well as the release or detention and placement of children.

In terms of cyber bullying the act seeks to divert matters away from the formal criminal justice system and to encourage the use of restorative justice in respect of children in the criminal justice system. It ensures children's accountability without necessarily criminalising them.

Electronic communication technology combined with poor impulse control make children particularly vulnerable to cyber bullying and therefore less harsh reactions to child offenders are required. One of the main objectives of the Act is diversion where the children are dealt with outside the formal criminal justice system and are encouraged to acknowledge accountability. In such cases the specific needs of the child are his or her reintegration into his or her family and community are considered. The possibility of re-offending is reduced and it prevents the child from having a criminal record if he complies successfully with the diversion order.

In 2003 the South African Law Reform Commission started an investigation into stalking. In 2010 the Protection from Harassment Act of 2010 was tabled before Parliament. The Act was published in the Government Gazette no 34818 dated 5 December 2011 as the Protection from Harassment Act 17 of 2011. The act came into effect on 13 April 2013. The Act does not define cyber bullying but the definition of harassment is wide enough to include acts of cyber bullying.

The aim of the Act is to provide for the issuing of protection orders against harassment. Upon application the magistrate may issue an interim protection order against the respondent who on the return date can show cause why the protection order must not be made final. If the interim order is confirmed and the respondent fails to comply with the order he can be arrested. The victim is still entitled to lay criminal charges against the perpetrator even though an order was obtained in terms of the Act.

RECOMMENDATIONS AND CONCLUSION

It was, from a South African point of view, very important to promulgate and implement the Protection from Harassment Bill 1 of 2010, which came into effect on 13 April 2013. As far as criminal sanctions are concerned, Australia, the United Kingdom and South Africa, has no specific criminal offences for cyber bullying but relies on a patchwork of generic offences to combat and prosecute these offences. All schools

should have specific policies on how to deal with cyber bullying, South Africa may also benefit from investigating the cyber security education program Cybersmart, in Australia for best practices. Finally, South Africa could also learn from the United Kingdom's anti-bullying guidance. Although there is no single solution, the crime can be prevented, through, updating existing policies, making reporting cyber bullying easier, promoting the positive use of technology and evaluating the impact of prevention activities. It is essential that all countries should introduce cyber bullying legislation in order to effectively eradicate this phenomenon.

REFERENCES

Australian Communications and Media Authority (ACMA), *Submission to the Commonwealth Parliament's Joint Select Committee on Cyber-Safety Interim Report* (June 2011)
Australian Criminal Code of 1995

Badenshorst, C. (2011) *Legal Response to Cyber Bullying and Sexting in South Africa*. Centre for Justice and Crime Prevention Issue Paper number 10, August 2011, 1-20

Belsey, B. (2010) *Cyberbullying: An Emerging Threat to the "Always on" Generation*. http://www.cyberbullying.ca/pdf/cyberbullying_article_by_Bill_Belsley.pdf (Accessed 3 February 2013)

Child Justice Act 75 of 2008

Commonwealth Parliament's Joint Select Committee on Cyber-Safety, *Interim Report: Recommendation 2* (June 2011)

Criminal Procedure Act 56 of 1955

Cross, D., Shaw, T., Hearn, L., Epstein, M., Monks, H., Lester, L., & Thomas, L. (2009). Australian Covert Bullying Prevalence Study (ACBPS). Child Health Promotion Research Centre, Edith Cowan University, Perth. www.deewr.gov.au. (Accessed 3 February 2013).

Department for Children, Schools and Families (DCSF) & Childnet International. *Safe to Learn :Embedding anti-bullying work in schools*. www.digizen.org/resources/cyberbullying/overview/default.aspx (Accessed 3 February 2013)

Hendricks, L., Lumadue, R. and Waller, L.R. (2012) *The Evolution of Bullying to Cyber-Bullying: An Overview of the Best Methods for Implementing a Cyber Bullying Prevention Program*. National Forum Journal of Counseling and Addiction, Volume 1, Number 1, 1-9

Patchin, J.W. Hinduja, S. (2011) *Cyberbullying identification, prevention and response*. http://www.cyberbullying.us/cyberbullying_identification_prevention_response.php (Accessed 15 March 2013)

Pelletier, R., *Cyberbullying: A real and present danger*, Teacher 203 (2009) 12-15

RESPECTME *Cyber bullying and the law* www.respectme.org.uk/cyberbullying-and-the-law.html (Accessed 3 February 2013)

Srivastava, A., Gamble, R. and Boey, J (2012) *Cyberbullying in Australia: Clarifying the Problem, Considering the Solutions*. International Journal of Children's Rights 1-21

Stride Foundation, *Submission 6 to the Commonwealth Parliament's Joint Select Committee on Cyber-Safety Interim Report* (June 2011)

The Protection from Harassment Act 17 of 2011

UNICEF: Convention on the Rights of the Child <http://www.unicef.org/crc/> (Accessed April 2013)

ASSESSING THE LONDON STOCK EXCHANGE'S INITIAL PATH-DEPENDENCY. A NEW INSTITUTIONALISM ANALYSIS

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ABSTRACT

This paper addresses, from the new institutionalism, why the London Stock Exchange (LSE) resisted the takeover bids from Macquarie Bank of Australia and NASDAQ. To answer this, the paper draws upon the three schools of new institutionalism. New institutionalism is used as the means concept through which an understanding of LSE can be reached primarily through the historical institutionalism's path-dependency. The year March 1801 created the foundations of a regulated securities market in England through the LSE's first ever subscription room. It is through a study of the LSE's past one can understand its present circumstances and its future.

INTRODUCTION

The London Stock Exchange (LSE) is steeped in history, dating back as far as 1762, when one hundred and fifty brokers formed a club and rented premises at Jonathan's Coffee Houses. The rent payable to the proprietor of the premises was £12,000 per annum, which was raised through the £8 charge per head in the form of subscription (Morgan and Thomas, 1969). However, this arrangement was to be short lived. One broker, who had been denied access to the premises, brought an action against the proprietors of Jonathan's. It was held that Jonathan's place had been a place for dealers in stocks and shares since time immemorial, and the plaintiff's right to access was therefore upheld. After this ruling, having been denied the exclusive use of Jonathan's place, the brokers acquired a building of their own along Threadneedle Street, and called it the "Stock Exchange" (ibid; p69). Strangely though, admission was not restricted and was open to all at a daily charge of 6d (ibid). It was not until March 1801 that the LSE was officially regulated, when it was converted into a subscription room. From its humble beginnings at Jonathan's, the LSE has grown into the largest stock exchange currently in Europe and subsequently, one of largest in the world. It is this global dominance that has attracted, from the turn of the twenty-first century, would be 'suitors' in the form of takeover bids from other international exchanges. Unimpressed by its courtiers, LSE has brushed off the advances of the Macquarie Bank of Australia (2005), Euro Next (2005), Deutsche Bourse (2005), NYSE (2006) and NASDAQ (2007). The LSE was of the view that NASDAQ's £12.43 per share offer was not even close on price.

On the 12th of February 2007, having seen off the NASDAQ hostile bid, the LSE posted a record £327 billion value in equities traded in the month of January the same year¹. In July 2007 the LSE sought to issue new shares in order to purchase Borsa Italiana for 1.6 billion Euros. NASDAQ opposed this move as it would water down its 30 percent stake in the Exchange to 22 percent². Furthermore Chris Gibson-Smith (LSE's chairman 1976-1988) reiterated to the shareholders that the LSE's strong performance and consistent growth supported the view that NASDAQ's previous bids undervalued the LSE. The takeover of Borsa Italiana was designed to fight off NASDAQ. In 2007 the LSE merged with Borsa Italiana to become the London Stock Exchange Group. The paper argues that in order to understand why it preferred a merger and fought off the bids from Macquarie and NASDAQ one must critically analyze the original ideas and values behind the LSE's creation. The London Stock Exchange Group's (LSE Group) total income and total revenue rose by 10% and 7% during the six months interim ending 30 September 2012³. This evidences its continuing growth. The LSE Group has also acquired in LCH.Clearnet and in July 2012 signed a Memorandum of Understanding (MoU) with the Singapore Stock Exchange (SGX). The MoU will facilitate

the largest and most actively traded stocks on the respective exchanges to be traded by their respective member firms (ibid).

THEORY: NEW INSTITUTIONALISM

Hall and Taylor (1996) defined institutions as “formal rules, compliance procedures and standard operating procedures which structure relationships between people in various units of the polity or the economy” (p.7). New institutionalist approaches come from a variety of disciplinary roots but share a common element of skepticism about atomistic accounts focusing on the individual (Baldwin and Cave, 1999). Despite sharing this common element of skepticism, new institutionalists do not share a unified body of thought (Hall and Taylor, 1999). There are three different schools of thought under new institutionalism, namely Rational Choice, Historical and the Sociological. All three seeking to elucidate the role that institutions play in the determination of social and political outcomes (ibid). Howell (2007) held that each of the three institutionalist schools of thought has a different perspective regarding agents and institutions. Howell (2007) identified that amongst its weaknesses, rational choice institutionalism had a simplistic understanding of agents, and because of this simplicity it fails to explain changes in institutional structures. The Achilles’ heel with sociological institutionalism is that unlike historical institutionalism it fails to deal with different choices and interpretations and the power struggle between different agents in specific settings. Sociological institutionalism rests its emphasis on cultural settings. Sociological institutionalism argues that cultural factors play an important part in institutional analysis (ibid). Rational choice explains the persistence of an institution through the effects that those institutional value functions have on the actors (Hall and Taylor, 1996). Institutions are created as a result of voluntary agreements by the relevant actors. It is the view of Hall and Taylor (1996) that institutions survive competition due to the fact that they provide more benefits to the relevant actors than alternate institutional reforms. New institutionalism seeks to explain the persistence of institutions. It is possible to find a mix of cultural and calculus behaviour within the individual actors. Calculus and cultural approaches also provide different explanations for why institutions display continuity over time. Hall and Taylor (1996) further posited that the calculus perspective argues that individuals adhere to patterns of behaviour because deviation will make them worse off, and the more these contribute to problem resolution the more robust the institution will be.

Historical institutionalism begins by insisting that new institutions are created or adopted in a world already replete with institutions (ibid). With historical institutions, culture plays an important role in their study. The original 150 members who created the LSE no longer actually exist. However their cultural values, norms, behaviour and initial policies are immortally embedded in the structural walls of the LSE’s history. It is their initial policies, their cultural values and norms which subsequently shaped the LSE’s future and behavior (path-dependency). Path-dependency according to Brendstrup (2002) is a ‘reproduction of the effects of a particular institutional configuration of the past into the present and what is needed to be identified are the mechanisms that sustain the reproduction’ (p8). Howell (2007) posited that historical institutionalism uses both calculus and cultural perspectives to identify the relationship between institutions and actors. It is these calculus and cultural behaviours within the LSE that this article also identifies. Howell (2007) noted that “...*historical institutionalism analyses institutions by taking into consideration path-dependency. This is where ideas incorporated in the formation of an institution are endogenous to present and future decisions. Institutions can only change in relation to past decisions*” (p. 6).

METHODOLOGY

The original LSE manuscripts held by the City Guildhall Library, London, served as primary data. The records are not available for consultation until they are thirty years old. The records were not in the public domain. The manuscripts that the researcher found invaluable were the General Purposes Committee minutes which dated from 1798. These manuscripts were all originals. The March 1802 Deed of Settlement was original. It was a two-way dialogic process⁴. The research process was qualitative in nature and meaning was therefore drawn from the data. The researcher reviewed the volumes in their chronological order, noting down elements of new institutionalism. Indeed history is selective and is the study of causes (Carr, 2001). It is a selection of events that are of historical significance. Selective or informative as it is, history must have meaning. Indeed path-dependency became the central focus of the Minutes; it meant identifying those decisions taken by the Committee for General Purposes and the Council which could be seen either as part of the formation of its path-dependency or were strengthening it. New institutionalism was used as a means of an interpretative tool of analysis of the LSE from its historical perspective into the new institutionalism perspective.

RESULTS AND DISCUSSIONS

All the three schools of thought that fall under new institutionalism seek an understanding of the existence and the perpetuation of an institution. Whilst each of these three schools of thought have their strengths and weakness, it is historical institutionalism that bridges them into one platform, as it draws upon the strengths of the calculus approach along with those of the sociological approach. The dialogic nature of historical institutionalism makes it unique in the sense that it is a dual interaction between the researcher and the researched. This allows themes to emerge as the dialogue continues. The past lives in the present through the means of path-dependency. The initial values, decisions, policies and ideas influence subsequent future policies of an institution. The following section covers the empirical analysis of the LSE. The analysis begins by tracing the origins of the LSE. This is necessitated by path-dependence methodology of historical institutionalism. Historical institutionalism dominates the analysis as it uses the calculus perspective of the rational choice and the cultural approach of the sociological institutionalism. The analysis is in three parts. The first covers the empirical analysis from the historical institutionalism perspective. The second is from the rational choice and the third is from the sociological institutionalism perspective.

Historical Institutionalism

Duguid (1901) argued that the Royal Exchange was the first Stock Exchange at the end of the seventeenth century when shares and stocks were first transacted. The Royal Exchange was burned down in the 1666 Great Fire of London. Thereafter the newly rebuilt Royal Exchange was not to everyone's satisfaction, as complaints were made that it was too crowded (Long, 1978). Subsequently the merchants involved in the trading of shares and stocks moved to the coffee houses of Change Alley at the beginning of the eighteenth century, and stayed there for the next hundred years before emigrating again to the Capel Court at the turn of the nineteenth century (ibid). From the years 1739-1815, Britain was either preparing for war or was engaged in wars every two to three years (Roberts, 2004). This in turn led to a great strain on the public debt, which increased from £44 million to £820million by the time of the battle of Waterloo (1815) (ibid). This led to birth of the secondary market which inevitably led to the creation of the LSE (ibid). In 1760 one hundred and fifty brokers were kicked out of the Royal Exchange for rowdiness and formed a club at Jonathan's Coffee House to buy and sell shares (Hobson, 1966). In 1773, this group of merchants acquired a building of their own along Threadneedle Street and on the 4th of July 1773 the title "The Stock Exchange" was adopted (ibid). The 1795 French occupation of Amsterdam and the blockade of Hamburg from 1803 had a devastating effect on the trade and financial activities of these then major financial institutions to such an extent that it led to the migration of merchants and capital to London (Roberts and Kynaston, 1995). It was against this backdrop and as well as the numerous French wars that London and the LSE's position as the world's primary trading and financial centre grew (Roberts, 2004). Furthermore, Britain financed the Napoleonic wars through what was known as a Sinking Fund under the National Debt, which brought a lot of business to the Exchange, bringing it further to national importance and international prominence (Jenkins, 1973). Expensive Napoleonic wars caused the Bank of England to suspend specie payments and the financial world was involved in panic (Duguid, 1901, Acres, 1931). In spite of this, the LSE grew from strength to strength, and flourished to a certain extent such that by the end of the eighteenth century. According to Acres (1931), "It was decided to rise to higher things; to secure land in Capel Court opposite, to erect a building, and to make the Stock Exchange a closed market' (p. 70).

On the 12th of January 1801 the Committee appointed for the General Purposes met at the behest of the Committee of Proprietors with the chief purpose of converting the LSE into a subscription room⁵. Amongst its Resolutions were (a) that in order to protect the interests of the Proprietors, it was felt necessary to secure in advance 200 to 250 base Subscribers before the conversion into a subscription room, and (b) the introduction of an annual fee of 10 Guineas paid yearly by each Subscriber and an annual sum of 5 Guineas to be paid by each clerk introduced by the Subscriber with the first fees being due on 2nd of March 1801⁶. Furthermore it was also resolved that the rules and the regulations to be abided by the Subscriber would be formed by the Committee appointed for the General Purposes and the Committee of Proprietors⁷. According to Hall (1996) institutions are defined as "The formal rules, compliance procedures that structure the relationship between people in various units of the polity and economy" (p. 7). These rules and regulations bound the LSE's Subscribers together into one common cultural, norms, values and procedural identity. These bound the LSE's Subscribers' behaviour in terms of either the cultural or calculus approach under new institutionalism. The rules and regulations also determined how the institution mediated with the economic and political forces of the outside world. The rules and regulations chartered the LSE initial path-dependency. This is largely due to the fact that the Committee of Proprietors represented the original nine

founders of the LSE who had created the Deed of Settlement. This meant that the owners of the LSE were also involved in the making of the rules and regulations and as such the rules and regulations were bound not to be divorced from the Deed of Settlement. Within the historical institutionalism framework, individuals make the institutional decisions that then persist throughout the life of the institution (Peters, 2001). Indeed as such, the Deed of Settlement “lived” for over another hundred and eighty-four years.

Historical institutionalism holds that institutional formation occurs when an idea has been accepted and embodied into a structural form (Peters, 2001). Proponents of this school of thought would inductively argue that the birth of LSE as an institution was in March 1801 when it was formally officiated. With new institutionalism, to be more precise with historical institutionalism, it is the initial policies set at the beginning that subsequently shapes the future policies of an institution (path-dependency). It follows as such with the LSE as its initial policies, path-dependency that is the closed-door policies, restrictive practices; elitist tendencies were implanted in March 1801. Michie (2001) defined a stock exchange as “a market where specialized intermediaries buy and sell securities under a common set of rules and regulations through a closed system dedicated to that purpose” (p. 3). On this definition in 1801 the LSE was the first modern Stock Exchange when it was officially regulated. The official regulation meant that the LSE became an institution not in 1773 when the one hundred and fifty members formed a club, but in March 1801 when it was officially regulated. The emphasis on the date of creation is further re-iterated by Peters’ (2001) argument that “It is important to know when creation occurs because the choice is crucial to future developments based on initial ideas. Initial patterns will persist and shape subsequent policies” (p73). It is these initial policies that created the path-dependency. In the LSE’s case these initial policies of March 1801 were further translated into the first Rule Book of 1812. From its very birth the LSE was still a very private institution closed to the public. The nine founders had pulled down the old houses purchased by them and on the site erected what was to be called the Stock Exchange. They had deemed the old houses in Threadneedle Street⁸ inconvenient and thus had them pulled down:

Upon the site thereof and the Ground belonging thereto caused to be erected a spacious Building for the transacting of buying and selling the public stocks or Funds of this Kingdom and the same is now nearly finished and is called The Stock Exchange and is intended to go under appellation⁹.

However grand, ambitious or bold this intention was, it eventually became reality, for the ‘spacious Building’ was to become the LSE, an exclusive club which by the eve of the Great War was the dominant institution of its kind in the world (Hennessy, 2001). Under the Deed of Settlement the nine founders of the LSE were to hold the office of Trustees or Managers for life, subject to resignation or disqualification¹⁰. The founders (the Trustees) had the powers of trusteeship and the management of the LSE building. They had powers to take leases for the purposes of the undertaking, and to declare dividends for the Proprietors:

The Trustees {first entering into a Resolution for that purpose at one of their Monthly Meetings) are to be at liberty to purchase any Freehold or Leasehold Mefsuages {sic} for the purpose of the undertaking and to pay for the same and enter into any agreements for the better accommodation of the Proprietors and Subscribers frequenting the Stock Exchange and as a majority of them see fit¹¹.

The Committee for General Purposes was in charge of the management and regulation of affairs:

The Committee for the General purposes (of whom 7 to be a Quorum) to have the sole management regulation and direction of all the concerns of the Undertaking- (Except the Treasureship thereof and the management and direction of the Buildings which are to be under the sole direction of the Trustees and Managers and except those particular concerns put under their direction)¹².

The Committee for General Purposes consisted of thirty members or subscribers who were chosen annually by ballot upon the 25th of March. The regulation of the Committee Room was under the direction of the Managers and Trustees¹³. The Managers and Committee for General Purposes were entitled to the use of the Committee Room. The Trustees had the sole power to annually fix the price at which subscribers could be admitted to attend and transact business at the LSE¹⁴ and also held the sole rights to declare dividends which they appropriated amongst themselves: “Trustees to make Dividends of profits yearly within 30 days after setting the accounts on the 25th of March in each year amongst the Proprietors according to their Shares and interests in the Undertaking”¹⁵. Historical institutionalism pays particular cognisance on how institutions distribute power unevenly across social groups and how some groups gain power at the expense of other groups (Hall and Taylor, 1996). In essence, what the 1802 Deed of Settlement did was to give greater powers to the Trustees or Managers and lesser ones to the Committee for General Purposes (representing the subscribers/members). Power is taken in the sense of control and ownership of the LSE. The next section covers the analysis of the LSE from the rational choice perspective. The rational choice assumes that actors in institutions are rational in their decision making process. This decision making and behaviour is analysed through the calculus perspective.

Rational Choice Institutionalism

The rational choice school of thought, in their deductive approach, would on the other hand, argue that the birth of LSE as an institution was not in March 1801 but in 1773 when a building was acquired along Threadneedle Street. Under this model institutions are chosen as instruments for satisfying individual interests and resolving collective dilemmas. Weyland (2002), noted that “As products of individual-level behaviour, institutions are not actors in their own right ...but merely ‘the rules of the game’ governing individual choice and strategic calculation” (p. 60). From a deductive point of view, it then follows that there was a logical need for the one hundred and fifty merchants to form “The Exchange” in 1773 after having been evicted from the Royal Exchange. They needed a place of their own to conduct trade and realise institutional gains. The subscription room set the LSE’s path-dependency to that of a self-regulatory, elitist and monopolistic institution. It is these attributes of the LSE’s path-dependency that anchored the rationalist perspective. Self-regulation and elitism ensured that the LSE solidified its monopoly over the London market. The LSE gave its Members a fixed set of preferences with penalties for defection. The most capital of punishments was expulsion from the LSE as a Member. This meant one could not practice in London as it had the monopoly. From a rationalist perspective the LSE thus became an ideal framework of understanding why institutions persist over time. The rationalists’ calculus argues that institutions persist over time as they offer actors a set of strategic preferences with penalties for defection. The seeds had been sown, the path-dependency, the self-regulatory aspect, the independence with minimum State interference. The seeds are still evident in 2007 as it has fought off numerous takeover bids. History is repeating itself. The next section analyses the LSE from the sociological institutionalism approach. Under this approach actors are assumed to take account such factors as cultures, values and norms when faced with decision making. The sociological approach uses the cultural approach in analyzing human behaviour.

Sociological Institutionalism

As early as in 1773, when the LSE was simply known as the “Stock Exchange”, in order to discourage what the established professionals called the “riff-raff, the tinkers and other parasites”, a sum of six pence was charged as entrance fee a day (Chapman, 1998, p. 19). This can be viewed as signs of its elitist tendencies, whose membership was preserved for the gentleman whose word was taken in good faith and not the “riff raff, the tinkers and other parasites of the day”. As such “the established routines or familiar patterns of behavior” were the gentlemanly behaviour and virtues that were expected to be upheld by the members. For the gentility behaviour upholds Hall and Taylor’s (1996) argument that under the cultural approach “Institutions provide moral or cognitive templates for interpretation and action” (p. 939). In the early days of the LSE, membership was limited to 500. This, according to Gibson-Jarvie (1979), “Was in order to curtail the risk of affording new facilities to the criminal designs of notorious and unprincipled gamblers” (p. 110). As such the subscription room was created in order to restore order in the markets and instill the public’s trust in the LSE. The markets were largely unprincipled and as such persons of devious means could profit, at the market’s expense. The need to restore and instill gentlemanly values led to the creation of the subscription room. There was little or no regulation governing human conduct and the only recourse for the LSE was to admit membership to those whom it perceived were trustworthy and whose word could be taken in good faith. Inevitably this led to segregation, where membership to the LSE was preserved for the elite. Cultural factors have an important part in determining the actors’ preferences. The culture, norms and values of the LSE bound it into an elitist closed at heart institution. Membership to the LSE was for the bourgeois

CONCLUSIONS

It can be argued that the LSE’s initial path-dependency still exists today. It is still in sense a self-regulatory institution with minimum State interference and is still dominant over the London market. The LSE will fight any takeover bids; preserve its self-regulatory aspect. It will as a last resort, opt for a merger of equals or acquire another Exchange. From the analysis, one can deduce the future behavioural outcomes of the LSE. It has been and still is a self-regulatory institution and independent and free from the legislature since its creation. In order to remain competitive in the long run, or should such a need arise, it will either choose a merger of equals or acquire another exchange. This helps in understanding why NASDAQ, Euro-next and the Macquarie takeover bids failed because these were hostile takeover. Within the realms of new institutionalism, the LSE’s behaviour is viewed as the path-dependency which was shaped into being by the means of the Deed of Settlement and the first ever subscription room. The initial policies of the past are affecting the present and to certain extent its future policies. The merger with Borsa Italiana is the LSE’s

calculus means of attaining and realizing institutional gains without being bought off. New institutionalism offers deeper insights into the workings of institutions. It is a strategic theory which brings the histories of the past unto those of the present. Indeed new institutionalism enables one to harness future opportunities through that element of predictability of future behavioral outcomes.

REFERENCES

- Acres, M. W. (1931). *The Bank Of England From Within 1694-1900*. Vol 1 Oxford University Press, Oxford
- Baldwin, R., & Cave, M. (1999). *Understanding Regulation Theory, Strategy, and Practice*. Oxford University Press. Oxford
- Brendstrup, S. (2002). Historical Institutionalism as middle ground in institutionalism? *Paper prepared for the conference: Institutionalism in Economics and Sociology-Variety, Dialogue and Future Challenge, Thursday 23 May-Saturday 25 May 2002 Rungstedgaard, Denmark*, 4- 8.
- Carr, E.H. (2001). *What is History?* Palgrave, Basingstoke, Hampshire
- Chapman, C. (1988). *How the Stock Market Exchange Works City Life After The Big Bang and The Great Crash*. New Edition, Hutchinson Business Books, London
- Duguid, C. (1901). *The Story of the Stock. Its History and Position*. Grant Richards, London
- Gadamer, H.G. (1985). *Truth and Method*. Crossroad, New York
- Gibson-Jarvie, R. (1979). *The City of London A Financial and Commercial History*. Woodhead-Faulkner-Commercial Union Assurance Company Limited, Cambridge
- Hall, P. A., & Taylor, R.C.R. (1996). Political Science and the Three New Institutionalisms. *Political Studies XLIV*, 936-957
- Hall, P. A., & Taylor, R.C.R. (1999). The Potential of Historical Institutionalism: a Response to Hay and Wincott. *Political Studies XLVI*, 942-960
- Hennessy, E. (1978). *Stockbrokers for 150 years. A History of Sheppard's & Chase 1827-1977*. Benham Press, Colchester
- Hennessy, E. (2001). *Coffee house To Cyber market 200 Years of The London Stock Exchange*. Ebury Press Random House, London
- Hobson O. (1966). *How the City Works*. The Dickens Press, London
- Howell, K.E. (2007). Cultural Perspectives in the National Assembly for Wales: Identifying Path-Dependency, Critical Moments and Critical Junctures. *Contemporary Wales: An Annual Review of Economic, Political and Social Research*, 19, 38-56.
- Jenkins, A. (1973). *The Stock Exchange*. Heinemann, London
- Long, J.W.D. (1978). *Inside the Stock Exchange*. Priory Press Limited, East Sussex
- Michie, R. (1987). *The London And New York Stock Exchanges 1850-1914*. Allen & Unwin, London
- Michie, R. (2001). *The London Stock Exchange A History*. Oxford University Press. Oxford
- Morgan-Victor, E., & Thomas, W.A. (1969). *The Stock Exchange. Its History and Functions*. Elek Books, London

Peters, B. G. (2001). *Rational Choice and Historical Institutionalism. Institutional Theory on Political Science. The New Institutionalism.* Continuum, London

Roberts, R. (2004) 'The City. A Guide to London's Global Financial Centre'. The Economist, London

Roberts, R., & Kynaston, K. (1995). *The Bank of England: Money, power, and influence 1694-1994.* Clarendon Press, Oxford

Weyland, K. (2002). Limitations of Rational-Choice Institutionalism for the Study of Latin American Politics. *Studies in Comparative International Development*, 37 (1), 61-62

ENDNOTES

1. Larsen P.T 'LSE sees off NASDAQ with record January' FT 12 February 2007
2. *Financial Times*, 12 July 2007 p12.
3. <http://www.londonstockexchange-ir.com/newsroom/2012pressreleases/2012-press-releases.htm> date of accession 22/11/2012
4. The then *New York Times* and the *Times* of the day were used to support the Minutes in order to give a more refined and balanced analysis
5. Old Stock Exchange Minutes, 12th January 1801 p65
6. Old Stock Exchange Minutes, 12th January 1801 p66
7. Ibid., 12th January 1801 p66.
8. Recitals; Abstract of March 1802 Deed of Settlement
9. 3rd Schedule March 1802 Deed of Settlement
10. 3rd Schedule of the Abstract to the March 1802 Deed of Settlement
11. 14th Schedule March 1802 Deed of Settlement
12. 7th Schedule March 1802 Deed of Settlement
13. 8th Schedule March 1802 Deed of Settlement
14. 36th Schedule March 1802 Deed of Settlement
15. 19th Schedule Abstract to March 1802 Deed Of Settlement

HELPING TWO DEVELOPING COUNTRIES TO GLOBALIZE BY IMPLEMENTING COMPETITIVE INTELLIGENCE

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ABSTRACT

This paper compares competitive intelligence (CI) activities in South Africa with CI activities in Brazil to determine how these countries can use CI to increase competitiveness. A questionnaire survey was sent to CI professionals. The majority of organizations cope above average with changes in the business environment and the CI function is more mature in South Africa than in Brazil. It is recommended that both countries should develop a CI culture by creating CI awareness among employees.

INTRODUCTION

The economic success of a country depends on its capacity to apply activities which create a competitive advantage, its ability to create an environment of transformation and progress, and its capacity to innovate (Canongia, 2006: 58). Competitive intelligence (CI) has long been recognized as a strategic management tool that could enhance competitiveness. This perception of CI as a strategic tool is not exclusive to developed countries. CI is expected to play a key developmental role in developing countries as well. The need to enhance companies' and by extension, countries' competitiveness has grown rapidly. CI is essential, and will increasingly be a challenge in the years to come, especially for emerging economies (Canongia, 2006: 58).

This paper will compare CI activities in South Africa with CI activities in Brazil. Companies in these two countries have faced increased environmental uncertainty and increasingly there is a need to compete in the global economy and to monitor and understand their environment more accurately for survival and success. Little research (Dou; Dou, Dou & Manullang, 2005; Du Toit, 2003) has been done on the application of CI in developing countries and the purpose of this paper is to examine the current situation with regard to CI activities in South Africa and Brazil. The business environment is highly complex in South Africa because of factors such as the country's unique history, diversity, geography, political and institutional landscape. Companies tend to be less dynamic and more resistant to change, compared to companies in industrialized countries. Within a short period of time after the democratic elections in South Africa in April 1994, the international market opened up. South Africa as a net exporter of strategic minerals and the 'gateway' to Africa has an internal environment ideally suited to the use of CI by companies to gain the competitive edge in a developing domestic economy and a challenging external environment. CI is therefore enjoying increased prominence in South Africa.

Substantial political changes in Brazil since 1990 have also led to greater information exchange and the Brazilian society has been evolving into a knowledge society dealing with political changes, globalization, new technologies, hyper competition and new global competitors, such as China. The Brazilian government and Brazilian companies have realized competing in a global economy requires a strong vision of what exists outside the country's borders. The objectives of this paper are: to determine the state of CI in South Africa and Brazil and to determine how these countries can use CI to improve competitiveness.

COMPETITIVENESS IN THE GLOBAL ECONOMY

Competitiveness is a multifaceted concept and according to Garelli (2003: 702) the competitiveness of nations “focuses on the policies implemented by nations to shape the environment around enterprises” and economic value is only created within the context of an enterprise. According to Waheeduzzaman (2002:13) the ultimate goal of competitiveness is to improve the standard of living or real income of the citizens of a country. Since companies actually compete in the global economy, many authors are of the opinion that when studying competitiveness, the focus should be on companies since they are the main engines of a country’s competitiveness (Garelli, 2003: 704). Organizations like the World Economic Forum (WEF) and International Institute of Management Development (IMD) rate countries annually on the basis of various competitiveness indicators. The WEF publishes the Global Competitiveness Report annually and the IMD the World Competitiveness Yearbook. A country like Brazil manages its competitive environment by relying on assets (land, people and natural resources) but is not necessarily competitive (Garelli, 2003: 706). Technology has an impact on the competitiveness of nations and South Africa is leapfrogging technological infrastructures by focusing on mobile rather than fixed phones (Garelli, 2003: 708). As a country becomes more competitive, the standard of living or per capita income increases and this helps the reduction of inequality within the country (Waheeduzzaman, 2002: 16).

COMPETITIVE INTELLIGENCE

With the increased volatility of the business environment, countries and companies rely on early detection of environmental changes so that they may respond with appropriate counter measures. Since they require time to adapt to the changing environment they should have the ability to anticipate changes and imagine the consequences of alternative responses to those changes and they use CI to facilitate the identification of potential opportunities and threats. Because CI improves decision-making, it helps a company to meet or exceed its objectives and business goals. Companies in developing countries who are familiar with CI practices in their local regional markets may find the requirement to extend CI practices globally very difficult to accomplish in a structured way (James, 2000: 44). Executives usually have to read through several reports and proposals before making decisions, and it is often found that they are overwhelmed with information and lack intelligence that will enable them to make more efficient decisions. Therefore, it can be said that the companies that are able to turn information into intelligence will succeed (Sewdass, 2012:24).

There are many definitions of CI. CI is the process of developing actionable foresight regarding competitive dynamics and non-market factors that can be used to enhance competitive advantage. CI is concerned with the techniques used to select and filter information from a variety of sources, to interpret and analyze it, to communicate it to the right people and to use it effectively (Dou, Dou & Manullang, 2005).. Competitive dynamics refers to the evolution of a company’s industry and the moves and countermoves of competitors, suppliers, customers, alliance partners and potential competitors. Non-market factors such as government regulations, tariffs and the culture of a country impact competitive dynamics but are not suppliers of products or services to the industry (Prescot, 1999:42-43). CI uses legally and ethically available public sources to assess the strengths and weaknesses of its competitors.

CI in developing countries

Kahaner (1996, p. 25) states that CI has become the 'latest weapon in the world war of economics', in which many emerging economies view CI as a way to win economic wars against larger, more industrialized countries. According to Calof and Skinner (1999:1) a country will under-perform without an appropriate CI infrastructure and they quotes Prescott and Gibbons by stating that “the key question is not whether governments should play a role in a company’s CI efforts but what should be the purposes and methods used by government.” Hawkins (2004:51) emphasizes that companies in developing countries should use formal processes of collecting, analyzing and disseminating intelligence to successfully compete in the global economy. Managers in developing countries continue to be surprised by undesirable changes in the environment and it appears that the advances in managing intelligence are as yet largely unknown in these countries. Currently most developing countries are weakly integrated with the global economy. Utilizing CI will enable companies in developing countries to gain a greater market share and to compete successfully against international competitors (Pellissier & Kruger, 2011). Ifan, Dou, Manullang and Dou (2004:995) state that “after a period of recession and inflation, most developing countries have to face the necessity of improving their capacities to innovate and increase the competitiveness of their industries”. Furthermore, in developing countries, the creation of new products from their natural resources is important

as it has the ability to contribute to the country's foreign direct investment (FDI) (Dou, Dou & Manullang, 2005). In order to achieve this, the implementation of CI will be the answer.

South African situation with regard to competitiveness

Before 1994 South Africa was isolated from the rest of the world as a result of the apartheid regime and this inhibited competitiveness (Viviers & Muller, 2004:54). After 1994 the economy became more open and, along with export markets, domestic markets became increasingly larger and more competitive with increased globalization of markets. Many industries were deregulated and privatized and there was a large construction boom due to the 2010 Soccer World Cup. To survive many South African companies needed to extensively globalize their business activities to exploit country differences and worldwide markets. This prompted companies to become more sensitive to external environments which includes monitoring political/legal, economic, technological, socio-cultural and industry forces such as competitors, customers and suppliers.

According to the Global Competitiveness Report (Schwab, 2011: 39) South Africa has moved up by four places to attain the 50th position in terms of competitiveness among 142 countries and it remains the highest ranked country in sub-Saharan Africa and second-places among the BRICS economies. By regional standards, South Africa also benefits from the size of its economy and it ranked 25th in the market size. The country's financial market development is ranked 4th and this indicates that there is a very high level of confidence and trust in South Africa's financial markets in other parts of the world. South Africa also does reasonable well in areas such as business sophistication (38th) and innovation (41st). These are a few examples that indicate that South Africa is the most competitive economy in the region but in order to further enhance its competitiveness, the country will need to address the most problematic factors for doing business. Inefficient government bureaucracy, inadequately educated workforce, restrictive labour regulations and corruption in South Africa are the most critical areas that pose problems for other countries doing business with South Africa.

Brazilian situation with regard to competitiveness

According to the Global Competitiveness Report 2011-2012 (Schwab, 2011:126), Brazil has improved its competitive position by five places and is ranked 53rd out of 142 countries. Brazil has also benefited from several competitive strengths. These strengths include its internal market size (10th), a sophisticated business environment (31st) and innovation (44th). The country also has an efficient financial market that is ranked 40th and the rate of technology adoption is relatively high at 47th compared to other countries in its region. However, there are several problematic areas that hinder countries from doing business with Brazil for example factors such as tax rates, tax regulations, inadequate supply of infrastructure and restrictive labour regulations, and these factors also impacts Brazil's capacity to fulfil and sustain its competitive potential.

RESEARCH METHODOLOGY

Since CI is a relatively new activity in developing countries, this study is mainly exploratory in nature. It attempts to provide a comparison of the implementation of CI in two developing countries, namely South Africa and Brazil. A questionnaire survey methodology was used where questionnaires were administered to CI experts in organizations in South Africa and Brazil. A combination of convenience sampling and snowball sampling were used to identify the experts in CI. Convenience sampling refers to the procedure of obtaining respondents (units or people) who are most conveniently available (Zikmund, 1994:367). Snowball sampling, on the other hand, refers to procedures in which additional respondents are obtained from information provided by initial respondents. This technique is used to locate members of rare populations by referrals (Cooper & Schindler, 2007:425). CI practices in South Africa and Brazil are still in the early phase of development and when CI is practiced by individuals in organizations, it is still a matter of sensitivity (Strauss & Du Toit, 2010: 311; Decaup & Domingues, 2009: 25). Furthermore, in South Africa there is no recognized list of practicing CI professionals available (Viviers & Muller, 2004:56) and in Brazil a similar situation exists where networking takes on an important role in the development of CI (Libis, 2005:249). Thus the researchers had to rely on their personal contact and networks in industries to identify the experts in CI. These experts were assumed to have a sound knowledge of CI, its implementation and benefits for organizations. This is perhaps a limitation of this study as some important experts practicing CI could possibly be left out of the survey. The questionnaire was structured as follows: Section A: Background and demographic information; Section B: Competitive situation in organizations; Section C: Competitive intelligence implementation in organizations. The questionnaire was sent as an attachment via email and it was accompanied by a cover letter to all identified respondents. The completed questionnaires had to be

returned to the email of the researchers. In South Africa the questionnaires were email to 40 CI experts and 24 questionnaires were completed which represents a response rate of 60%. In Brazil 33 questionnaires were emailed and 13 questionnaires were completed representing a response rate of 39.3%.

FINDINGS AND ANALYSIS

Credibility of the research is measured by the Cronbach Alpha Coefficient and a higher scale than 0,7 is considered as being reliable. With regard to the questionnaire for Section A the Cronbach Alpha was 0,751, for Section B 0,802 and for Section C 0,787. An overall coefficient of 0,778 was calculated for the results obtained and this is considered to be in the range of scores considered as being reliable.

Biographical data

In South Africa the gender of the respondents was mostly male (70%) while in Brazil the gender was almost equal (53.8% male and 46.2% female). In Brazil 84.6% of the respondents were younger than 50 years while in South Africa 50% of the respondents were younger than 50 years. The majority of respondents in South Africa had postgraduate degrees and was either top management or senior/middle management level of their organizations' (85%), while the majority of respondents in Brazil has bachelor's degrees and were either in top management or senior/middle management level of their organization's (69.2%). The South African findings here correlate with the findings of Du Toit and Strauss (2010:24). In Brazil the majority of the respondents (76.9%) were employed by companies with more than 500 employees compared to South Africa where only 50% of the respondents were employed by companies with more than 500 employees. It is interesting to note that in South Africa four companies with less than 50 companies also use CI as a strategic tool. With regard to industries the majority of companies in Brazil were in the manufacturing industry (30.7%) while in South Africa the majority of companies were in financial, insurance, real estate and business services (25%).

Competitive situation

In South Africa 55% of the organizations are of the opinion that they cope above average with changes in the business environment. This is an indication that organizations in SA should pay more attention to CI as a strategic business tool. In Brazil only 46.1% of the organizations indicated that they cope above average. This is an indication that currently CI practitioners in Brazil do not realize the importance of scanning the environment as an early-warning tool to adapt strategies. The majority of South African organizations indicated that competition in their business environment is very intense (65%) compared to the organizations in Brazil where only 23% of the organizations indicated that competition is very intense.

Competitive intelligence function/unit

According to the majority of respondents in South Africa (60%), a formal CI function does exist in their organization while in Brazil a formal CI function exists at only 15.4% of the organizations. In South Africa the CI function has been in existence for more than five years in 65% of the companies while in Brazil none of the companies had a CI function for more than five years. This indicates that the CI function is more mature in South Africa than in Brazil.

CI activities

With regard to the five most important CI activities implemented by organizations, 85% of the respondents strongly agreed that they evaluate the reliability and accuracy of information while 61.5% of the respondents in Brazil strongly agreed that the CI function assists to quantify/qualify strategic choices. The majority of the organizations (84.6%) agreed that their staff members always report back on competitor actions and that they evaluate the reliability and accuracy of information (see Figure 1). With regard to the situation in South Africa, 25% of the respondents strongly agreed that their organizations use CI for decision-making while 58% agreed that they interview managers to verify intelligence products and evaluate the reliability and accuracy of information. Fifty per cent of the respondents strongly agreed that the most important CI activity in their organization is to use CI to remain cognisant with government legislative trends Twenty-one per cent of the respondents use CI to assist in the quantification/qualification of strategic choices. This is also an indication of the maturity level of CI in South Africa (see Figure 2).

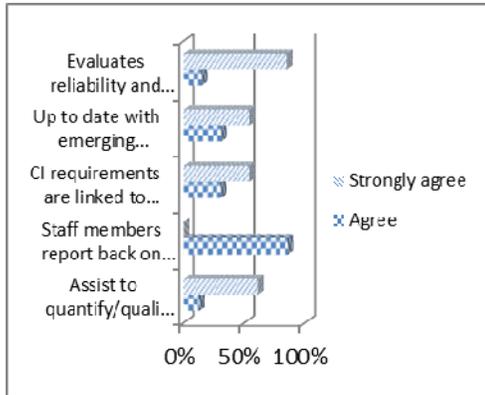


Figure 1: Brazil: five most important CI activities

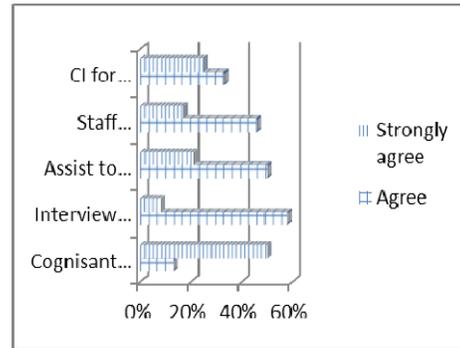


Figure 2: South Africa: five most important CI activities

Use of secondary sources

In Brazil, respondents identified promotional material, information on regulatory bodies and sales forecasts as the most important secondary sources used by them (see Figure 3). Interesting 31% of the respondents never use corporate annual reports or survey summaries (38%). The most important secondary sources used by South African organizations are information on regulatory bodies (see Figure 4). The fact that information on regulatory bodies is so important, is an indication that restrictive regulations (enacted by the government) often contribute to a decline in competitiveness. This is in contrast with developed countries where deregulation enhances competitiveness. Promotional material, internal financial information and corporate websites are also important sources.

Use of primary sources

The most important primary sources used by organizations in Brazil are direct customer feedback, suppliers and analysis of competitor's feedback (see Figure 5). This finding correlates with the findings of Libis (2005:241) that there is abundant access to primary research but that credibility of the sources is questionable. Organizations therefore prefer to collect their own information directly from customers. The most important primary sources used by organizations in South Africa are industry experts, direct customer feedback and company employees. Staff who attend conferences and seminars are also important information sources. This indicates that South African organizations sensitize and train their employees to collect information on the competitive environment (see Figure 6).

Analytical methods or models used

The majority of organizations in Brazil (61.5%) used competitor analysis and 46.2% of them use SWOT analysis and Customer Segmentation Analysis to a great extent while only 30.7% of the organizations used Financial Ratio and Statement Analysis to a very great extent (see Figure 7). This indicates that organizations in Brazil do not use sophisticated analysis techniques. With regard to the use of CI analytical methods or models in South Africa, 50% of the respondents used industry analysis to a great extent while 40% of the organizations used SWOT analysis to a great extent and 10% of the organizations used it to a very great extent (see Figure 13). Benchmarking, competitor analysis and GAP analysis is used to a great extent by 35% of the organizations and 15% used it to a very great extent (see Figure 8). This collaborates with the findings of Viviers and Muller (2004:64) that South African organizations do not use sophisticated analysis techniques.

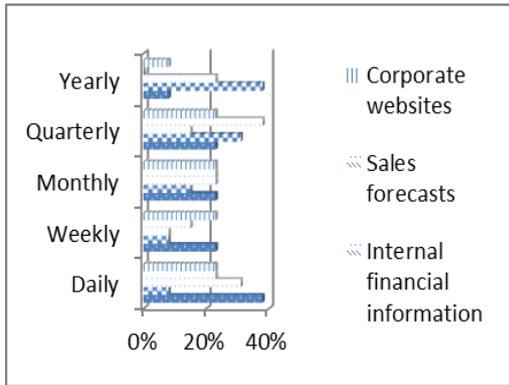


Figure 3: Brazil: use of secondary sources

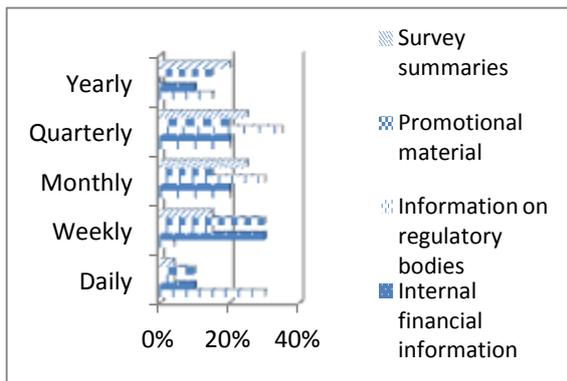


Figure 4: South Africa: use of secondary sources

Methods used to distribute and present CI findings

The majority of organizations in Brazil (46.2%) used email and customer//competitor/supplier profiles to a great extent to distribute CI findings. Reports and market and industry audits are used by 38.5% of the organizations to a great extent. Presentations are used by 23% of the organizations to a great extent while 30.8% of the organizations used it to a very great extent (see Figure 9). The most popular method to distribute CI findings in South Africa is presentations which are used by 41% of the organizations to a great extent and by 27% of the organizations to a very great extent. Briefings are used by 55% of the organizations to a great extent and by 14% of the organizations to a very great extent. This is also an indication that CI is practiced on a mature level in South Africa. Email is used by 27% of the organizations to a very great extent, personal delivery by 23% of the organizations to a very great extent and reports are used by 45% of the organizations to a great extent (see Figure 10).

RECOMMENDATIONS AND CONCLUSIONS

As Brazil and South Africa become more integrated into the global economy it stands to reason that the global economy will have more of an impact on the countries' economy. To this end it has become more crucial to monitor global events and trends and it is very important for both countries to develop a CI culture. CI analyses not just the environment but competitors and markets as well. Therefore understanding the direction that competitors are moving to in the future is key to be able to counteract them timeously. Keeping abreast of domestic and international market trends and their potential impact on organizations in both countries is vital. Trend tracking needs to monitor the impact of not only product changes but also organizational changes such as future mergers and dissolutions. It is also recommended that organizations in both countries should enhance a CI culture by creating CI awareness among employees and provide CI training sessions for new employees. CI could enhance the competitiveness of South African organizations in the global economy. There is clear recognition that the world will become more competitive and will increasingly do so.

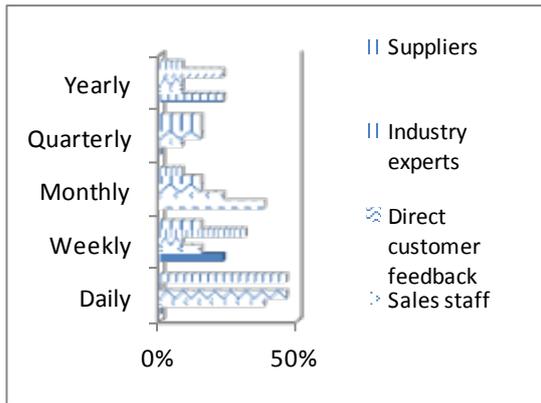


Figure 5: Brazil: use of primary sources

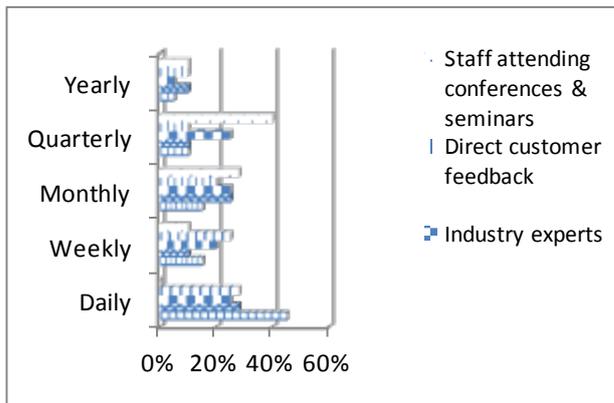


Figure 6: South Africa: use of primary sources

Whether South African managers will meet these challenges is not clear and according to the empirical survey conducted, few have actual plans to improve their ability to keep track of competitors and to enhance their competitiveness. There appears to be a degree of complacency and self-deception that is inhibiting managers from instigating effective planning to improve CI and few conduct CI in a formal systematic manner. CI should assist senior management to develop and review a set of key intelligence needs (KINs). Only a limited number of organizations in Brazil recognize the importance of a CI unit and did not indicate the use of CI for decision-making as one of the five most important CI activities. CI should assist senior management to develop and review a set of key intelligence needs (KINs). In order to provide direction to the CI function in these organizations, it is important that they should interview management on a regular basis. According to the survey organizations in Brazil do not use sophisticated techniques such as blind-spot analysis and scenario analysis to analyze CI data. The use of these techniques as early warning signals is very important to get a head-start on competitive organizations in the global economy. The CI function in organizations in Brazil should thus evolve from ‘providing just the facts’ (reactive) to being ‘a key component of company strategy’ (proactive).

It is recommended that organizations in Brazil should seek to engage proactively with the global environment by revising their strategic priorities. It is therefore evident that organizations in Brazil need to redress some critical competitiveness issues, most notably the establishment of the CI function as a strategic tool. Without a CI strategy, organizations will find it difficult to position themselves in the global marketplace. A limitation of this research is that a small sample was used and further research which includes a larger sample will have to be conducted. In the light of the world-wide interest in CI in developing countries and the desire to understand how South Africa and Brazil can improve its competitiveness, the hope is expressed that the South African and Brazilian governments and industries will in future create an environment which will facilitate the competitiveness of organizations and encourage long-term sustainability.

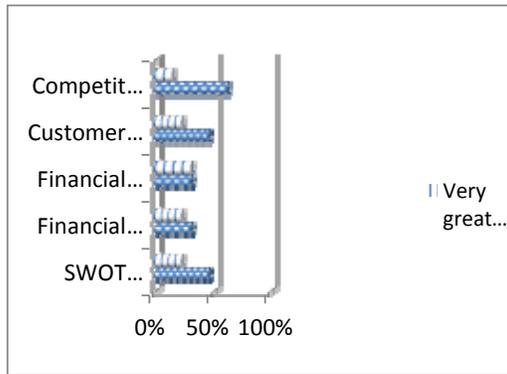


Figure 7: Brazil: analysis methods or models used

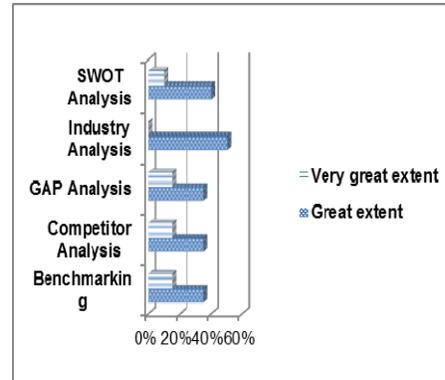


Figure 8: South Africa: analysis methods or models used

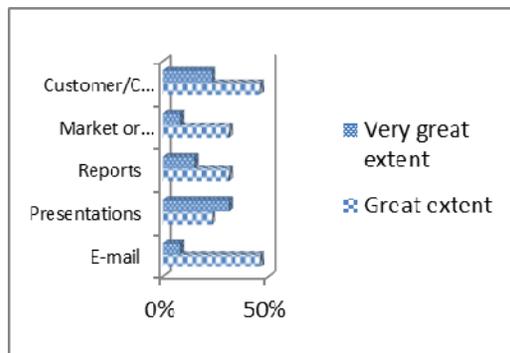


Figure 9: Brazil: Methods used to distribute & present CI findings

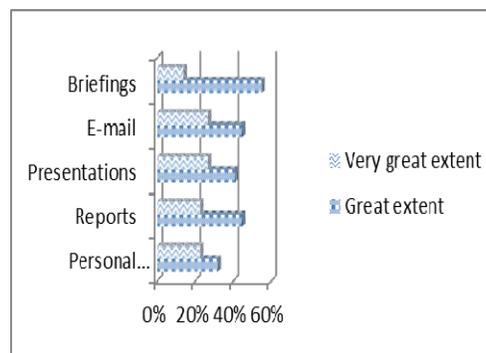


Figure 10: South Africa: Methods used to distribute & present findings

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REFERENCES

- Calof, J. & Skinner, B. 1999. Government's role in competitive intelligence: what's happening in Canada? *Competitive Intelligence Magazine*, 2(2):1-5.
- Canongia, C. 2006. Synergy between competitive intelligence (CI), knowledge management (KM) and technological foresight (TF) as a strategic model of prospecting - the use of biotechnology in the development of drugs against breast cancer. *Biotechnology advances*, 25: 57-74.
- Cooper, D.R. & Schindler, P.S. (2007). *Business research methods*. 9th ed. New York: McGraw-Hill.
- Decaup, A. & Domingues, F. 2009. Competitive intelligence practices implementation in Brazilian companies. *Competitive Intelligence Magazine*, 12(3): 20-25.
- Dou, H. Competitive intelligence worldwide. Retrieved March 11, 2010 from <http://www.ciworldwide.org>.
- Dou, H., Dou Jr., J.M., & Manullang, S.D. 2005. The magic triangle – how to develop and apply competitive intelligence in developing countries. Retrieved February 12, 2009 from http://isd.m.univ-tln.fr/PDF/isd22/isd22_dou.pdf.

- Du Toit, A.S.A. 2003. Competitive intelligence in the knowledge economy: what is in it for South African manufacturing enterprises? *International Journal of Information Management*, 23(1):111-120.
- Du Toit, A.S.A. & Strauss, A.C. 2010. Competitive intelligence and Africa's competitiveness: what's happening in South Africa? *Mousaion*, 28(2):17-32.
- Garelli, S. 2003. Competitiveness of nations: the fundamentals, *in* *IMD World Competitiveness Yearbook*: 702-713.
- Hawkins, D.B. 2004. Competitive intelligence in New Zealand. *Journal of Competitive Intelligence and Management*, 2(4): 42-52.
- Ifan, H-K., Dou, J-M., Manullang, S. & Dou, H. 2004. Developing competitive technical intelligence in Indonesia. *Technovation*, 24: 995-999.
- James, S. 2000. Focus on global competitive intelligence. *Information Outlook*, 4(2): 43-46.
- Kahaner, L. 1996. *Competitive intelligence: From black ops to boardrooms – how businesses gather, analyse, and use information to succeed in the global marketplace*. New York: Simon & Schuster.
- Libis, J. 2005. Competitive intelligence in Brazil. In: *Competitive intelligence and global business*. Edited by D.L.Blenkhorn & C.S. Fleisher. 2005. Westpoint, Connecticut: Praeger. pp 237-251.
- Pellissier, R. & Kruger, 2011. Understanding the use of strategic intelligence as a strategic management tool in the long-term insurance industry in South Africa. *South African Journal of Information Management*, 13(1). Retrieved January 14, 2012 from www.sajim.co.za.
- Prescot, J.E. 1999. The evolution of competitive intelligence – designing a process for action. *Proposal management*, Spring: 37-52.
- Schwab, K. (ed). (2011). *Global competitiveness report 2011-2012*. Geneva: World Economic Forum.
- Sewdass, N. (2012). Proposing a competitive intelligence (CI) framework for public service departments to enhance service delivery, *South African Journal of Information Management*, 14(1). [Online]. Available: www.sajim.co.za. Accessed June 2012.
- Strauss, A.C. & Du Toit, A.S.A. 2010. Competitive intelligence skills needed to enhance South Africa's competitiveness. *Aslib Proceedings*, 62(3): 302-320.
- Viviers, W. & Muller, M-L. 2004. The evolution of competitive intelligence in South Africa: early 1980s – 2003. *Journal of Competitive Intelligence and Management*, 2(2):53-67.
- Waheeduzzaman, A.N.M. 2002. Competitiveness, human development and inequality: a cross-national comparative inquiry. *Competitiveness Review*, 12(2): 13-17.
- Zikmund, W.G. (2003). *Business research methods*. 7th ed. Mason: South Western Thomson.

CONSUMER TRUST DETERMINANTS IN TUNISIAN BANKS: AN EXPLORATORY STUDY

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ABSTRACT

The global economic crisis and the intensification of the competition in the Tunisian banking sector especially with the entry of Foreign Banks. These circumstances make the commitment of the customers a necessity for the survival of the banks. The study of the impact of trust on long-term relationships orientation with the banks should allow the managers of these latter to anticipate the risk of escape of their customers and to imagine actions that promote the continuity of the commitment. The purpose of this paper is to identify consumer trust determinants in Tunisian Banks. In this respect, an exploratory qualitative study was conducted. In fact 13 semi direct interview were conducted. The results identified two facets of trust: institutional and interpersonal. Three dimensions of trust were also determined: competence, honesty and benevolence.

INTRODUCTION

Trust is essential for any Exchange relationships. Many researchers have attempted to understand and grasp this concept. Even there is a large development in marketing researches on this issue yet ambiguity still remains. Ben Miled 2012 states that Trust is a multidisciplinary concept and it was treated in: economy (Schmidt 2001), sociology (Granvotter 1985), socio psychology (Rempel and Homes 2001), marketing (Sirieix and Dubois1999), That explains the diversity of definitions.

This work fits into the general framework for a better understanding of consumer trust, using Tunisian Banks as a case study, conducting a qualitative exploratory study. The theoretical implications of this research can be seen at three levels. First, despite a theoretical potential powerful enough to work on trust in marketing, little research has been conducted in the study of trust in consumer behavior. In fact, according to the literature, it is clear that it is the inter-company relationships that have been the preferred field of application for searching. However, since Filser's remark in 1998 on the rarity of the consideration of the trust as predictor of consumer behavior, few studies have begun to develop. This work was particularly interested in the study of trust towards brand (eg, Gurviez 1999; Sirieix and Dubois, 1999). On the managerial level, any exchange relationships mainly in business long term orientation must be concerned with the question of establishing and maintaining trust. In the first part of this article, we'll briefly discuss the notion of confidence as it has been studied in marketing. Then we will present results of the qualitative research. In conclusion, several lines of research will be outlined.

THE CONCEPT OF TRUST IN MARKETING

Many researchers have high lightened the profusion of definitions of trust. Defined as presumption, expectancy, belief, desire or as behavior, trust appears as a concept polymorphic diversity of definitions hinders development of research in this area (Guibert, 1999). Based on the first reflections Dwyer and Lagace (1986), Barclay and Smith (1997) have identified two conceptions dominant faith in the literature. In the first one, trust is treated as cognitive expectancy or emotional feeling, while in the second; it appears as a risk-taking behavior or as a willingness to engage in such behavior. Based on these considerations, we could distinguish two approaches predominant in the literature: firstly, trust is identified as a psychological state upon the behavioral intention (presumption, expectancy, belief); secondly, it is seen as an intention or behavior (willingness to rely on partner behaviors confident).

Trust as a psychological variable

A first current research captures the trust as a psychological state which excludes behavioral dimensions of order. Indeed, for some authors, it is necessary to eliminate from the definition of the concept of trust the behavioral intention. Their argument is based on the fact that for behavior is a result and not an integral part of the conceptualization of notion of trust (Morgan and Hunt, 1994). In this context, trust is understood as a psychological state upstream of the intention of behavior that could result in a presumption (Gurviez and Korchia, 2002; Bidault and Jarillo, 1995), an expectation (Sirdeshmukh, Singh and Sabol, 2002 Perrien et al, 1999) or by a belief vis-à-vis partner exchange (Sirieix and Dubois, 1999; Ganesan, 1994, Anderson and Narus, 1990 Anaderson and Weitz, 1989).

Despite this diversity of conceptualizations of the notion of trust, the authors agree, beyond their differences, that is based on cognitive elements but also emotional. Indeed, since the questioning of the primacy of cognitive paradigm and the appreciation of the emotional in understanding behavior, work on confidence was freed from a purely rational concept long suggested by economic theory. Therefore, more and more researchers recognize that the trust does not obey only purely cognitive processes; it also involves mechanisms of emotional (emotions). Character emotional trust is evidenced by benevolence, which represents the dimension emotional. The latter refers to the attention can manifest some interest and well-being of the other (Ganesan, 1994).

Trust as a behavioral variable

The second stream of research advocates a design exclusively the behavioral concept. It captures the trust or as actions (Deutsch, 1962) and in which case the second stream of research advocates a design exclusively the behavioral concept. It captures the trust or as actions (Deutsch, 1962) and in which case speak confident behavior (Smith and Barclay, 1997) or as an intention behavior resulting willingness to be vulnerable (Mayer, Davis and Schoorman, 1995) or by the willingness to rely on an exchange partner (Moorman, Deshpande and Zaltman, 1992; Andaleeb, 1995; Chaudhuri and Holbrook, 2001).

What emerges from the different conceptualizations of trust evoked by these authors is probably the recurring reference to the notion of vulnerability in proposed definitions. For example, for some authors, trust is understood as "the willingness of a party to be vulnerable to the actions of the other party (Mayer, Davis and Schoorman, 1995, p.712), for others, trust goes beyond the simple intention (willingness) to translate in behavior, but the vulnerability remains pervasive in the definitions. The concept of trust is then treated as actions that increase its vulnerability to another (Deutsch, 1962) or to" actions reflect the willingness to accept vulnerability in an uncertain situation "(Smith and Barclay, 1997, p.6).

DETERMINANTS OF TRUST TOWARDS TUNISIAN BANKS: A QUALITATIVE EXPLORATORY STUDY

Few academic researches on the subject have been conducted in Tunisian Bank sector (Ochi 2008), therefore it is important to undertake an exploratory research. The ultimate goal is to achieve a better understanding of concept of consumer confidence and its determinants in Tunisian Banks.

Objectives, methodology and sample qualitative study

Objectives

The objectives of the study are qualitative at three levels:

- At the level of the concept of trust: Exploring the Concept of trust in the perspective of the Consumer, check the relevance of the emotional component of trust in the context of Marketing services and finally validate the previously proposed definition.
- At the conceptual framework: Submit a preliminary model of the determinants of trust.
- At the later stages of the research: Generating items to build a scale of trust toward Tunisian Bank.

Methodology

In the context of this exploratory study, individual interviews and semi-mix interviews were conducted. Indeed, the interview technique allows for a level of depth and friability of information that is lacking in other more quantitative methods . It is particularly suitable when the purpose of the study is essentially heuristic.

The interview guide was designed according to the method of the funnel. It revolves around three topics:

1. General attitude in relation with Tunisian Bank faced with a choice of investment
2. Financial institutions and their presentation by the respondent
3. The respondent bank and its relationship with it

Sample

Since this is an exploratory qualitative study, representation was not an important issue when gathering our sample (Evrard et al., 2003). The goal is not extrapolate a set of results, but to capture the variety of cases or possible situations. Thus, a reduced size is not an issue since it reflects the diversity possible responses by the interviewees. We conducted our interviews with 13 people. It is a convenience sample consisting mainly of teachers in university. The profile of the interviewees is presented as follows: 50% female and 50% male. The average of age is 41 years. These interviews lasted on average 30 minutes .the saturation criterion was chosen to determine the sample size.

This criterion was defined by Mucchielli (1991, p 114) as "the phenomenon that appears after some time in qualitative research when the data is collected only are new." This test well theoretically clear that is empirically difficult to implement a perfectly rigorous manner. But from the 13th interview, we felt that there was no enrichment of verbal material exists, we have decided to stop.

RESULTS OF THE QUALITATIVE STUDY

Verbal material collected was subjected to thematic content analysis. After having cut the speech units of meaning, we performed a horizontal analysis. This allowed us to identify patterns and to see how the different themes been addressed by the interviewees. But as pointed Giannelloni and Vernet (1995), the results of the qualitative analysis should be interpreted with caution because of the non-representativeness of the sample. In what follows, we will proceed first to examine the notion of trust as perceived by the consumer. The objective is to assess the validity of the proposed definition of trust in Tunisian Bank. Then we will discuss the factors that have been identified as likely to influence consumer confidence to Tunisian bank. This step will allow us to establish a preliminary version of a conceptual framework. At the end of the thematic analysis, we were able to discern six meta-categories relating to competence, integrity and benevolence of the bank and the banker, which predicts a two-and three-dimensional aspects of trust in the Tunisian banks-customer relationship. The interviewees have indeed expressed different dimensions of trust depending on whether referring to the bank or to the banker. This structure may be finally validated in the quantitative phase of the research.

The interviews show, moreover, that the area studied has meaningful specificities when compared to its similar French and North American. These features are on the one hand, cultural, related to the nature of the relationship, marked by a strong impregnation of interpersonal relationships. They are on the other hand, from a collection of the bank distinctive compared to private service.

Cultural characteristics are related to the entanglement and economic social spheres. They support the role of the banker in maintaining customer loyalty. In Tunisian banks, the banker's knowledge gives, in fact, entitled to relational benefits (quality hospitality, a personalized, accelerated procedures ...). It reinforces the customer's choice, develops their confidence and strengthens its attachment to the institution. This context is also marked by the existence of trends regional influence the choice of the bank and determines the nature of the relationship with it. Unlike European cultures and Anglo-Saxon aspects interpersonal relationships seem to be decisive in the context of Tunisian bank.

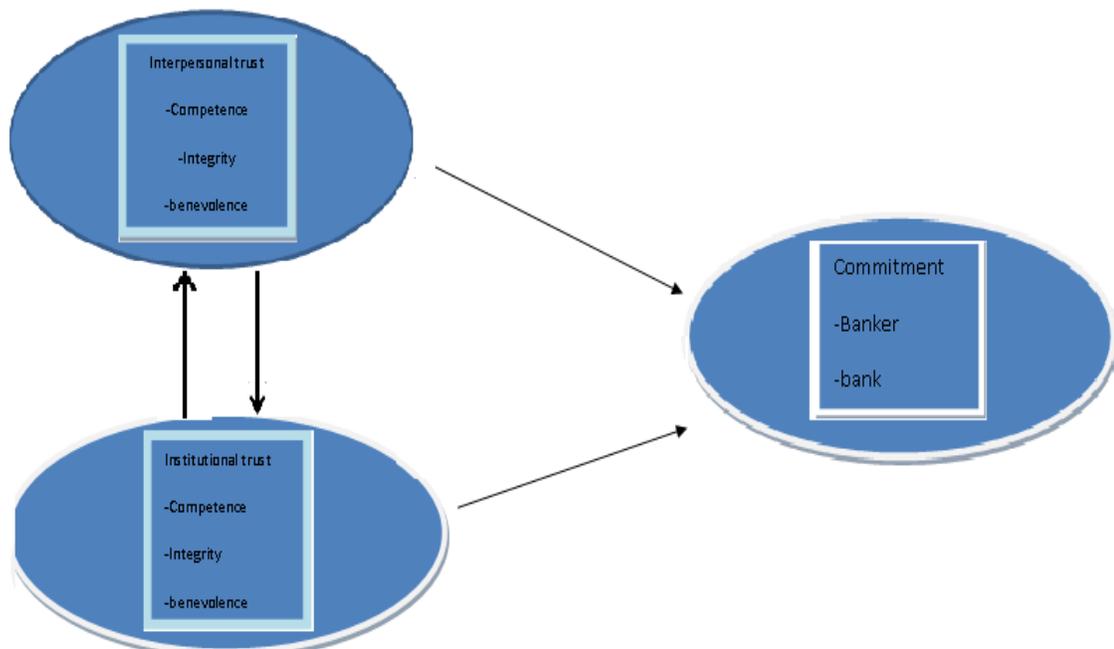
The Tunisian banking sector is also characterized by a different perception of public and private banks. The later are considered more competent and more active in communication, they are also thought to dispose of a qualified and better trained staff than public banks. The interviews show, however, skepticism about the morality of private banking and its pricing policy, the interviewed appear, indeed, dissatisfied with excessive, tariffs charged in the private sector. The specific context Tunisian banking endow customer commitment in his relationships with his bank. In fact, verbal material collected evidence, shows, the

importance of institutional reasons in the choice of private banking and continuity of relationship with her. It also reveals the predominance of interpersonal aspects of relationship in public banks.

We wish, finally, to say that the teachings of this qualitative phase were not intended to be extrapolated to the entire population, but predict structure of the trust and to discover its characteristics in a cultural context other Westerner. They form the foundation for the subsequent quantitative phase.

Finally, a conceptual framework from the results of the exploratory phase may occur as follows:

figure1: framework of trust and his consequence commitment



CONCLUSION

This qualitative study aims to test a multi-faceted conceptualization and dimensions of trust in a context other than European and North American. It seeks to explore the specifics of a new cultural context in confidence. To achieve the above objectives, the semi-structured interviews, lasting an average of 30 minutes, have been made with thirteen people with various profiles in age and gender. The number of interviews was determined according to the principle of saturation (Mucchielli 1991), . The verbal material collected has been a thematic level.

At the end of the thematic analysis, we were able to discern three dimensions of trust relating to: competence, integrity and benevolence of the bank and the banker. We distinguish two facets of trust: interpersonal and institutional in the Tunisian bank customer relationships.

The specific context of the Tunisian banking endow customer commitment in his relationship with his bank. The verbal material collected, shows the evidence, of the importance of institutional patterns in the choice of the private bank and its continuity relationship with her. It also reveals the primacy of interpersonal aspects of relationship in public banks.

We want finally to say that the teachings of this qualitative phase were not intended to be extrapolated to the general population, but predict structure of the trust and to discover its characteristics in a cultural context other than the occidental one. In fact it's an exploratory study to be a foundation for a quantitative study.

REFERENCES

Anderson E., & Weitz B., (1989). Determinants of continuity in conventional industrial channel dyads, *Marketing Science*, 8, 4, p310-323.

- Anderson J. C., & Narus J. A., (1990). A model of distributor firm and manufacturer firm working partnerships, *Journal of Marketing*, 54, 42-58.
- Bagozzi R. P., (1975). Marketing as exchange, *Journal of Marketing*, 39, 4, 32-39.
- Bardin L. (1998). *L'analyse de contenu*, Paris, P.U.F.
- Barney J., & Hansen M. (1994) . Trustworthiness as a source of competitive advantage, *Strategic Management Journal*, 15, 175-190.
- Bauer H. H., Grether M., Leach M. (2002). Building customer relations over the Internet, *Industrial Marketing Management*, 31, 155-163.
- Ben Miled H la . (juin 2012), la confiance en marketing, *Economie et Management*, n 144.
- Bigley G. A., & Pearce J. L., (1998). Straining for shared meaning in organization science: problems of trust and distrust, *Academy of Management Review*, 23, 3, 405-421.
- Blois K. J. (1999). Trust in business relationships: an evaluation of its status, *Journal of Management Studies*, 36, 2, 197-215.
- Chaudhuri A., & Holbrook M. B., (2001). The chain of effects from brand trust and brand Affect to Brand Performance: The Role of Brand Loyalty, *Journal of Marketing*, 65, 81-93.
- Deutsch M. (1962). Cooperation and trust: some theoretical notes, *Nebraska Symposium on Motivations Proceedings*, 275-320.
- Doney P., & Cannon J. (1997). An examination of the nature of trust in buyer-seller relationships, *Journal of Marketing*, 61, 35-51.
- Dwyer F. R. Shurr P. H., & Oh S. (1987). Developing buyer-seller relationships, *Journal of Marketing*, 51, 11-27.
- Dwyer F.R., & Lagace R.R. (1986). On the nature and role of buyer-seller trust, *AMA Educators Proceedings*, University of Cincinnati, Chicago, T.Shimp et al Eds, 40-45.
- Evrard Y., Pras B. et Roux E. (2000), *Market :  tude et recherche en marketing*, Paris, Nathan.
- Filser M. (1998). Confiance et comportement du consommateur, *Economie et Soci t s*, S rie SG , 8-9, 279-294.
- Frisou J. (2001). Confiance interpersonnelle et engagement : une r orientation behaviouriste. *Recherche et Applications en Marketing*, 15, 1, 63-80.
- Ganesan S. (1994). Determinants of long-term orientation in buyer-seller relationships. *Journal of Marketing*, 58, 1-19.
- Ganesan S., & Hess R. (1997) . Dimensions and levels of trust: implications for commitment to relationship. *Marketing Letters* , 8, 4, 439-448.
- Garbarino E., & Johnson M. (1999). The different roles of satisfaction , trust and commitment in customer relationships. *Journal of Marketing*, 63, 70 - 87.
- Geyskens I., Steenkamp J. B., & Kumar N. (1998). Generalizations about trust in marketing channel relationships using meta-analysis. *International Journal of Research In Marketing*, 15, 223-248.
- Giannelloni J.L. et Vernet E. (2001), *Etudes de march *, Paris, Vuibert.

- Graf R., Perrien J., Ricard L. et Landry C. (1999), La confiance : son statut et sa valeur normative, *Actes du 15ème Congrès International de l'Association Française du Marketing*, Strasbourg, 261-278.
- Guibert N. (1999). La confiance en marketing : fondements et applications, *Recherche et Applications en Marketing*, 14, 1, 1- 19.
- Gurviez P. et Korchia M. (2002), Proposition d'une échelle multidimensionnelle de la confiance dans la marque, *Recherche et Applications en Marketing*, 17, 3, 41-58.
- Gurviez P. (2000). Marque-Consommateur : contrat ou relation de confiance ?, *Revue Française du Marketing*, 176, 31-44.
- Kennedy M. S., Ferrell L. K., & Thorne Le Clair D. (2001). Consumer's trust of sales person and manufacturer : an empirical study, *Journal of Business Research*, 51, 13-86.
- Luo X. (2002) . Trust production and privacy concerns on the Internet: a frame work based on relationship marketing and social exchange theory, *Industrial Management Journal*, 31, 111-118.
- Mayaux F. et Flippo J. P. (1995). Marketing des services : rien à faire sans la confiance, *Confiance, Entreprise et Société*, éd. F. Bidault, P.Y. Gomez et G. Marion, Eska, 151-162.
- Mayer R., Davis J. & Schoorman F., (1995). An integrative model of organizational trust, *Academy of Management Review*, 20, 3, 709-734.
- Moorman C. Deshpandé R. & Zaltman G. (1992) . Relationship between providers and users in market research: the dynamics of trust within and between organizations, *Journal of Marketing Research*, 29, 314-328.
- Moorman C. Deshpandé R., & Zaltman G. (1993). Factors affecting trust in market research relationships, *Journal of Marketing* , 57, 81-101.
- Morgan R., & Hunt S. (1994). The commitment-trust theory of relationship marketing, *Journal of Marketing*, 58, 20-38.
- Mucchielli A. (1991), *Les méthodes qualitatives*, Que sais-je ?, Paris, P.U.F.
- Ochi Faten. (2008), La confiance et ses fondements interpersonnels : réalité de la relation banque Tunisienne-client thèse de Doctorat Université Paris Est.
- Rempel J. K., Holmes J. G. & Zanna M. P. (1985), Trust in close relationships, *Journal of Personality and Social Psychology*, 49, 1, 95-112.
- Sirdeshmukh D., Singh J., & Sabol B. (2002), Consumer trust, value and loyalty in relational exchanges , *Journal of Marketing*, 66, 15-37.
- Sirieux L. (1999) et Dubois P. L. Vers un modèle de qualité-satisfaction intégrant la confiance ?, *Recherche et Applications en Marketing*, 14, 3, 1-22.
- Smith J. B., & Barclay D. W. (1997). The effects of organizational differences and trust on the effectiveness of selling partner relationships, *Journal of Marketing*, 61, 3-21.
- Swan J. E., Trawick I. F., & Silva D. W. (1985), How industrial salespeople gain customer trust, *Industrial Management Journal*, 14, 203-211.
- Williamson O.E. (1993), Calculativeness, trust and economic Organization, *Journal of Law and Economics*, 36, 453-345.
- Yoon S. J. (2002). The antecedents and consequences of trust in on-line purchase decisions. *Journal of Interactive Marketing*, 12, 2, 47-63

NEW VENTURE PLANNING SKILLS INCORPORATE ETHICS FOR INDUSTRY:A STUDY OF CURRICULUM FOR ENGINEERING STUDENTS

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ABSTRACT

Recent changes in policy at UCT have focussed on 'graduateness' for students as they prepare for the challenges of professional life. Ethics is a key area of 'graduateness' and one that has, until recently, not had its own focus. In response to changing South African legislation which has increased focus on ethics, ECSA (Engineering Council of South Africa), responsible for setting standards for the qualification of engineers, requested emphasis on ethics.

At the University of Cape Town, courses offered by Professional Communication Studies (PCS) equip students for their professional careers; in particular a course which supports New Business Planning. Ethics is an important area that forms part of this course and this paper explores innovations in the teaching of ethics to engineers in the PCS department in 2011/2012. The innovations are a response to changes in the assessment requirements of ECSA and to the challenges of UCT's focus on 'graduateness'.

INTRODUCTION

Professional Communication Studies' (PCS) of the University of Cape Town, South Africa, was requested by the Engineering Council of South Africa (ECSA) to include a component on professional ethics. ECSA meets the international requirements of the Washington Accord. Ethics was deemed as an essential component of the non-technical skills' and knowledge base in the accreditation process for undergraduate engineers and as an essential component in the New Venture Planning (NVP) courses.

Institutionally, PCS operates within the Faculty of Engineering at the University of Cape Town (UCT). UCT has a reputation as a leading university for teaching and research both in Africa and globally (CHED 2010:48). At a professional level, PCS, together with the rest of the Engineering Faculty, is accountable to the Engineering Council of South Africa (ECSA) which accredits the particular curriculums of the different Engineering Departments. ECSA has developed a set of Exit Level Outcomes (ELOs) independent of the UCT conception of graduateness (CHED 2010:75) and which require detailed analysis and response in each accredited course as to where these ELOs are demonstrated and how they are assessed.

The teaching strategy of PCS is a combination of lecturer input, practical engagement and written (reports; business proposals; executive summaries, posters and theses), oral (presentation skills for individual and group skills and creation and use of appropriate visual aids) and managerial skills (leadership, negotiation, conflict skills, meetings, debate around NVP) which include ethics. Courses are experiential, dynamic and inter-active. This small group (approximately 25 students) has the appropriate dynamic for facilitating the debate of professional ethics.

Aim

The paper reviews the ECSA accreditation process which is approved by the internationally recognised Washington Accord; it evaluates the needs of the Faculty of Engineering and the Built Environment and, in particular, the curriculum renewal initiatives coming from the Faculty. The paper examines the role of ethics and the New Venture Planning component. It looks at the motivators for and management of the NVP programmes and their inclusion of professional ethics in the teaching of related professional skills and support offered by the PCS modules.

Background

PCS runs courses that supplement the technical engineering courses with skills aimed at equipping students for their academic future as regards thesis writing and their professional careers (Sulcus and English, 2010) as regards report writing, business correspondence, or business proposal writing and presentation skills. These professional skills courses are often offered in conjunction with project work in core engineering course and their recognitions comes out of research across academia (Moreale and Pearson, 2008; Hondonga, 2011); industry (Rhodes, 2002; Costlow, 2002) and national requisites (National Planning Commission Report, 2011). In addition, PCS runs workshops on those skills required by those who will be graduating into professions (Conradie *at al.*, 2010). Skills covered include problem-solving techniques, business communication skills, and negotiation and team-work. Professional ethics is a core factor in all these areas.

Professional Communication Studies' is increasingly challenged to consider the value of the skills and principles it teaches and the context in which these skills are taught (see Tables 1-3). At an inter-departmental level, PCS courses are closely linked with NVP project work in the different engineering departments, for example, the business proposal development project that falls in 4th year for both the electrical and chemical engineers and the group presentation of 4th year Civil Engineers road integration project or the 4th year Architecture project. These projects require a high level of collaboration and collegial respect between the departments.

In the NVP module and its project, students learn how to prepare a business plan for launching a potential new business offering a product or service. A business plan is a carefully thought-out description of where the business is now, where it wishes to be at some defined time in the future, and how it proposes to get there (Fui-Hoon Nah, Lee-Shang Lau and Kuang, J. 2001). The plan acts as a roadmap to measure progress. It states what the aims of the business are, how it will make money and who will make it work. It is a working document to address challenges encountered in the process - it is not a guarantee for success. While the eventual business model will possibly look different from the original idea, a thorough plan will ensure that the business is viable (Von Blottnitz, 2012). Learning outcomes are that students:

- Understand the various aspects of starting and operating a business.
- Are able to describe a product or service in investor's terms.
- Understand and apply risk analysis models such as SWOT.
- Differentiate and expand on the needs and benefits of a product/service
- Are able to determine with a reasonable degree of certainty whether or not a business or innovation is viable.
- Acquire the ability to know why and when you need to write a business plan and be able to produce a document which demonstrates to business associates – such as bankers and investors, and
- understand the importance of the process of team formation and management in a multi-disciplinary project team.

Topics are drawn from projects in engineering departments with which students are engaged in main stream courses; for example, global warming; water scarcity; low cost housing; electrical and electronic systems. The NVP courses have theoretical support in Action Learning. The following definition was used in a memorandum Action Learning and the Developing Countries, prepared in 1974 for The Council for Technical Education and Training in Overseas Countries (TETOC):

“Action Learning is a means of development, intellectual, emotional or physical, that requires its subjects, through responsible involvement in some real, complex and stressful problem, to achieve intended change sufficient to improve his observable behaviour henceforth in the problem field. Learning-by-Doing may be, perhaps, a simpler description of this process, although action learning programs presume a design and organization unnecessaryAction learning particularly obliges subjects to become aware of their own value systems, by demanding that the real problems tackled carry some risk of personal failure, so that the subjects can truly help each other to evaluate in what they may genuinely believe. Action learning demands real-time and hence observable activity on the subject's parts and thus tests whether the subjects are committed to what they can, in other conditions, merely asseverate.” (Revans, 1982, p. 627)

The course also serves to acquaint students with national drives such as the King 111 report and ECSA's rules. The aim of recent changes in corporate governance worldwide is to promote greater corporate accountability, transparency and stakeholder confidence (Leclercq, 2011). The original King Report on Corporate Governance (King 1: 2009; Harris *et al.* 2009) incorporated a Code of Corporate Practices and Conduct that was aimed at promoting the highest standards of corporate governance in South Africa. It was the first of its kind in the country and was intended as a code of good practice that emphasised

responsibilities of company directors. King 111 has developed to emphasise social transformation through black economic empowerment and by moving away from goals being for the ‘bottom line’, i.e. profits for the company, to making the ‘triple bottom line’ the objective for all companies: financial, social and environmental corporate reporting. This is a reinforcement of the agreement of trust between professionals and society (Leclercq, 2011). King III — released in July 2010 — includes an increased focus on sustainability, risk management, information technology and internal auditing, remuneration, alternative dispute resolution and business rescue – all inherent to ethical practice.

Methodology

This paper is a desktop study of the processes of including the teaching of professional ethics in an engineering curriculum. It examines the effectiveness of the learning experience, materials, assignments and outcomes (Biggs, 2003; Boud, 2009; Black and McCormich, 2010). Part of the review considers the manner of improving practices (Jawitz, 2009) and assessment tools (Dreyer, 2008) to measure this.

ASSESSMENT OF ETHICS COMPONENT IN NVP

Previous research at PCS has concentrated much of its efforts on the communication side of Professional Communication (Sulcas and English, 2010; English *et al.*, 2011; English *et al.* 2012). Consequently, it is important to give substance to a conceptual understanding of what the ‘professional’ side entails and its relevance for NVP and ethics.

The measure of the tag ‘professional’ is that arises from both a technical and a legal base, which enables skills to be translated into outcomes (Larson, 1979). This conception of professionalism does not address the challenges of recognising professional behaviour – including knowledge, organisation and the ethics of professional service’ – as central in defining a professional (Lawson, 2004, p. 26). Professionalism thus engages dynamically with aspirations of best corporate practice as a complex combination of characteristics rather than a particular definition. Being a professional is defined, in ideal terms, as a benchmark to inspire performance rather than as an attribute belonging to a particular class of people. Initially, the inclusion of ethics in the NVP module was evaluated by Duly Performed assessment only, but the importance of these skills have been emphasised by ECSA. Thus, marks are now allocated to this section as can be seen from Table 1.

Table 1: Comparison of proportion of marks for the three distinct categories of the 3rd and 4th Year Chemical Engineering PCS Courses 2009-2012

Course accredited	Written Communication	Oral Communication	Professional skills
Elec/Chem/Mech Eng 3 rd Year 2009	60%	30%	10%
Elec/Chem/Mech Eng 3 rd Year 2010	62.5%	31.25%	6.25%
Elec/Chem/Mech Eng 3 rd Year 2011	57.5%	32.5%	10%
Elec/Chem/Mech Eng 3 rd Year 2012	62.5%	37.5%	Shift to be assessed in 4 th year
Elec/Chem/Mech Eng 4 th Year 2009	50%	50%	0
Elec/Chem/Mech Eng 4 th Year 2010	50%	50%	0
Elec/Chem/Mech Engm 4 th Year 2011	50%	50%	0
Elec/Chem/MechEng 4 th Year 2012	40%	40%	20%

Previous research at PCS has concentrated much of its efforts on the communication side of Professional Communication (Sulcas and English 2010; Newton *et al.*, 2011). In Table 1 it is evident that written skills were given the major emphasis but, previously no marks were given to professional skills which included ethics. Yet, in practice, professional ethics are a major part of the role of the professional engineer in relation to other roles (English *et al.*, 2012). Time and financial constraints put pressure on the

global engineer resulting in pressure to cut corners, to work within narrow limits at risk of loss of ethics (Bowen et al., 2007).

ECSA Requirements for accrediting Professional Communication Studies' courses

Engineering Council of South Africa certifies and ensures the professional competence of individuals through registering them. It also ensures the quality of engineering education through accrediting institutions and regulating professional conduct, and thus, it is concerned with professional ethics. ECSA specifies certain requirements of the engineering courses at UCT. The individual courses are correlated against a set of ECSA requirements to see that the course effectively achieves these outcomes. (ECSA, 2011)

A significant reason for this shift in PCS's emphasis from communication skills to include professional skills - and professional ethics - is the drive by the Engineering Council of South Africa (ECSA) to clarify and interpret required learning outcomes in the accreditation of engineering courses in the different institutes of higher education. These institutions are historically focused on delivering the hard skills such as mathematics and sciences. ECSA's recognition of the value of the soft skills to the graduate engineer created a space for Professional Communication Studies to provide learning opportunities to support learning outcomes in the NVP modules and through teaching ethics. Van der Vost (2004) emphasises how ethical decision-making lies at the heart of engineering design. It touches on technical competency, but reaches out to include a deeper understanding of how design affects individuals, society, and the natural environment (Van der Vost, 2004). Engineers are seen to play a key role in the 'development, production and operation of technology, (where) they are, at least in part, responsible for the consequences of technology.... Explicitly or implicitly, it is expected that engineers perform their work in ethically and socially responsible ways (Zandvoort *et al.*, 2000, p. 371).

It is apparent that it is more and more important to ensure ethics is 'embedded in the engineering curriculum' (Fleishman 2004:371). Engineering students need to see extended engagement with issues such as social transformation, sustainability and whistle blowing over the course of their degree. Students also need to be encouraged to use technology to store and collate their work as a portfolio over the full length of their degree, demonstrating not only the development of technical proficiency in expressing and communicating over time, but a sustained engagement with ethical issues incorporated in their project work (www.wix.com).

The role of Exit Level Learning Outcomes (ELOs)

The engineering degree courses cover six major knowledge areas, namely: mathematics; basic sciences; engineering sciences; design and synthesis; computing and IT and, what is termed, complementary studies. These knowledge areas are assessed in a series of Exit Level Learning Outcomes (ELOs) from 1-10 and course content is deemed satisfactory, or not, in terms of the specified competencies taught. Professional Communication is identified as an area of complementary studies and is seen to contribute extensively to Exit Level Learning Outcomes (ELOs) 6, 8 and 10, namely Professional and Technical Communication, Individual, Team and Multidisciplinary working, and Engineering Professionalism. It is in terms of the requirements of these areas that the PCS courses for the 3rd and 4th year Electrical and Chemical Engineering programme are assessed. See Tables 2 - 4 for definitions of the ELOs pertaining to PCS.

ECSA requires documentation requiring proof of assessment of the outcomes. Each outcome needs to be re-assessed if competence is not clearly demonstrated (in the case of PCS, outcomes for Levels 6, 8 and 10 as per Tables 2-4). Consequently, the student is given an additional opportunity to improve on non-satisfactory performance. The material is required to be presented in an academic or simulated professional context to a non-specialist professional audience.

Another change to the assessment was the addition and inclusion of peer review as part of the assessment of the ethics' module. This allowed groups to identify and acknowledge those who had worked exceptionally hard and supported the rest of the group; to identify those who had worked as individuals on their own or alternatively; to identify those who had not pulled their weight in contributing to group work on the poster, the business concept or the preparation for the presentation. The peer review forms used in level 8 provide good material for further analysis of the professional learning experiences of students (Table 3).

Table 2: Level 6 of ECSA Exit Level Outcome (ELO) definitions

<p>Professional and Technical Communication: Learning outcome: demonstrate competence to communicate effectively, both orally and in writing, with engineering audiences and the community at large.</p>	<p>The candidate executes effective written communication as evidenced by: Uses appropriate structure, style and language for purpose and audience; Uses effective graphical support; Applies methods of providing information for use by others involved in engineering activity; Meets the requirements of the intended audience.</p> <p>The candidate executes effective oral communication as evidenced by: Uses appropriate structure, style and language; Uses appropriate visual materials; Delivers fluently; Meets the requirements of the intended audience.</p>
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Source: ECSA, 2011, p. 6

Table 3: Level 8 of ECSA Exit Level Outcome (ELO) definitions

<p>Individual, Team and Multidisciplinary working teams: Learning outcome: demonstrate competence to work effectively as part of a team.</p>	<p>The candidate exhibits team and multidisciplinary working by: Making an individual contribution to team activity Performing critical functions Enhancing the work of fellow team members Benefits from support of team members Communicating effectively with team members Delivering completed work on time.</p>
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Source: ECSA, 2011, p. 6

The assessment of Engineering Professionalism for level 10 (see Table 4) includes a multiple choice test based on detailed engagement with the ECSA Code of Conduct. This test is intended to ensure that each student engages personally and with full attention to the detail of the ECSA documents. The test format is designed to ensure attention to the detail of the ECSA Code of Conduct so that the student is alerted to areas which require their professional attention. An ethics' essay requires each student to present his/her own response to a specific practical scenario which required ethical engagement and action. Group discussion is recommended prior to embarking on the writing and research stage of the task in order to ensure that students expand their conception of the challenges involved through discussion with a diverse group. Each student then prepared an individual response, supported by reference to policy documents and relevant literature. Issues of style and discourse built on what was had been learnt over the third and fourth year.

Table 4: Level 10 of ECSA Exit Level Outcome (ELO) definitions

<p>Professional and Technical Communication: Learning outcome: demonstrate critical awareness of the need to act professionally and ethically and to exercise judgement and take responsibility within own limits of competence.</p>	<p>The candidate exhibits professionalism by the following: Being aware of requirements to maintain continued competence and to keep abreast of up-to-date tools and techniques; Displays understanding of the system of professional development; Accepts responsibility for own actions. Displays judgement in decision-making during problem solving and design; Limits decision-making to area of current competence; Reason about and make judgement on ethical aspects in case study context; Discerns boundaries of competence in problem-solving and design.</p>
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Source: ECSA, 2011, p. 7

The ECSA team in their review of the curricula in 2010 requested that the students also understand that the 10 required outcomes taken together express the “hallmarks of an engineer” (ECSA 2010, p. 3), recognising ‘what they do’ as well as ‘what they know’. (Accreditation Visit Team Report to the EPAC,

UCT, p. 2). The ability to allow students to reflect and engage with what they do is on a different level from the usual assessment of what the student knows and requires different assessment techniques.

The critique resulted in various changes being made to the PCS curriculum. Ethics has been positioned as a skill to be developed and practised alongside other professional skills rather than being considered as intuitive or an innate value. The written assignment has been expanded – students are given scenarios (see Table 5) to research. In their discussion, the concept of ethics must be seen to be supported by the professional codes, where ethics is rightly or wrongly identified as a skill alongside other professional skills. This assignment is supported by the literature that describes ethics as existing in knowing how to make decisions and knowing what are appropriate behaviours (Newberry, 2004; Benetar, 2011) and how to carry them into design (Van der Vost, 2004).

Table 5: Scenarios to be researched in relation to professional codes

<p>1. It is usual to distinguish between professional and general ethics because of differences in audience, content and method. Give an example of a way in which the following concerns are relevant to us generally and to the specific profession [yours]. That is, give an example of a way in which the following concerns are relevant to us generally and to your specific profession: that is, the way in which justice is a concern to everyone (general ethics) and then how justice is a concern in your profession. Discuss justice relative to audience, content and methodology (professional ethics).</p>
<p>2. Analyse three professional codes of conduct / ethics of your choice (At least one must be for the quantity surveying fraternity in South Africa). List three values that they all share. In arriving at these values, be sure to define them in such a way that would be compatible with all three codes. Can you identify and describe any values left out of the primary six that are normally described in the literature? If so, what are they and what do they add to the discussion?</p>
<p>3. Robert is a third year engineering student whose DP is at risk, even though he knows he is doing the best work he can. A friend offers to help him by sitting next to him and “sharing” his answers during the next exam. Robert has never cheated in an exam before, but this time he is desperate. Should he accept his friend’s offer?</p>

CONCLUSION AND FUTURE RESEARCH

Teaching ethics is a skill to continue to be identified, valued and practised. Professional Communication Studies (PCS) is a department well positioned to expand its role within the Engineering Faculty at UCT as regards teaching and demonstrating principles of professional practice and effective communication. At a most basic level, the teaching of ethics can be seen to relate to communicating facts about the ECSA Code of Conduct, responsibilities and policy documents that regulate the practice of the engineer. Teaching in this area would be aimed at establishing competence – a key concern of ECSA. For final year students the weighting of marks for oral, written and professional skills in 2012 with those of previous years shows far better recognition of professional skills now being given. Peer review is included with the ethics assessment as part of professional skills. The essay topic has extended the opportunity of applying the details of the ECSA Code of Conduct and the reinforcement of these in a multiple choice test on the ECSA Code of Practice emphasises its importance for students.

Further research may be conducted into creating learning opportunities for students to apply and develop their ethical reasoning and decision-making skills in conjunction with the application of their technical engineering skills. Such research would strengthen the role that PCS plays in teaching and assessing ethics as part of its focus on professionalism. PCS will continue to work with the different departments in the Engineering Faculty and to engage with current debates into teaching and learning theory and ways to encourage students to engage with the practice of engineering in ethically sound ways.

REFERENCES

Benetar, D. (2011). Teaching Ethics at UCT. *Monday Paper*, February 28-13, March 2011, 6-7.

Biggs, J.B. (2003). *Teaching and quality learning at university*, 2nd ed. Buckingham: Society for research into Higher Education and Open University Press.

Black, P. & Mc Cormick, R. (2010). Reflections and new directions. *Assessment and Evaluation in Higher Education*, 35(5), 493-499 Retrieved 28 July 2011 from <http://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F02602938.2010.493696>.

Boud, D. (2009). Assessment options in higher education. *Assessment and Evaluation in Higher Education*. 34(2), 127-140.

Bowen, P., Pearl, R. & Akintoye, A. (2007). Professional ethics in the South African construction industry. *Building Research and Information*. 35 (2), 189-205.

CHED and Institutional Planning Department. (2010). *Teaching and Learning at UCT: A Report on the 2009 Academic Year, UCT*.

Costlow T. (2002). The ethical organization. *IEEE Spectrum*. December 2002, 56-58.

Collier, R. (2012). Professionalism: What is it? *Canadian Medical Association Journal*. 184 (10), 1129-1130.

Dreyer, J.M. (Ed) (2008). *The Educator as Assessor*, Van Schaik Publishers, Pretoria.
ECSA Accreditation Visit Team (Sept 2010). *Report to the EPAC, UCT*, Chemical Engineering, 2.

Engineering Council of South Africa. (2011). *Standards and Procedures System, Exit Level Outcome definitions*, 1-11.

Engineering Council of South Africa. (2004). *Standards and Procedures System Document PE 61. Rev 2*. Accessed July 201 from <http://www.ecsa.org.za>.

English, J., Basckin, V., De Jager, K. & Nassimbeni, M. (2012). *Professional Communication*. Ed. Jane English. Cape Town, Juta.

English, J., Dumbrell, K. & Newton, R. (2011). A Tool to Measure Development in Communication Competency from Entrance to Exit Level in University Students, *Conference Proceedings of SACOMM: The Past is Present*, 29-31 August, UNISA, Pretoria, Electronic copy.

Fui-Hoon Nah, F., Lee-Shang Lau, J., & Kuang, J. (2001). Critical factors for successful implementation of enterprise systems, *Business Process Management Journal*, 7 (3), 181-194.

Fleishman, S. (2004). Embedding Ethics in an Engineering Curriculum. *Science and Engineering Ethics*. 10, 369-381.

Harris, C., Pritchard, M. and Rabins, M. 2009. *Engineering Ethics*. USA: Wadsworth

King 1. Accessed 21 January 2013 from <http://www.i-value.co.za/king>.

Larson, M.S. (1979). *The Rise of Professionalism: A sociological analysis*. University of California Press, Berkeley.

Lawson, WD. (2004). Professionalism: The Golden Years. *Journal of Professional Issues in Engineering Education*. 130 (1), 26-36.

Leclercq, C. (2011) New Companies Act will have Far-Reaching Implications for Business. *Engineering News*. May 27-June 2.

Morreale, S. & Pearson, J. (2008). Why Communication Education is Important: The Centrality of the Discipline in the 21st Century. *Communication Education*, 57(2), 224-240.

- National Planning Commission. (2011). *National Development Plan: Vision for 2030*. 11 Nov 2011. Accessed 12 October 2012 from <http://www.npconline.co.za/medialib/downloads/home/NPC%20National%20Development%20Vision%20030%20lo-res.pdf>.
- Revans, R. W. (1982). What is Action Learning?, *Journal of Management Development*, 1(3), 64-75.
- Rhodes, M. (2002). Who pays the blind watchmaker now? *IEE Engineering Management Journal*. December 2002, 250.
- Sulcas, G. & English, J. (2010). A Case for Focus on Professional Communication Skills at Senior Undergraduate Level in Engineering and the Built Environment, *Southern African Linguistics and Applied Language Studies*. 28 (3), 219-227.
- Van der Vorst, R. (1998). Engineering, Ethics and Professionalism, *European Journal of Engineering Education* 23 (2), 171-179.
- Von Blottnitz, H. (2012). *Course notes: CHE4048 2013*, Department of Chemical Engineering, Faculty of Engineering and the Built Environment, University of Cape Town.
- Wilkinson, T. (2009). A Blueprint to Assess Professionalism: Results of a Systematic Review. *AcademicMedicine*. 4 (5), 551-8 cited by Collier, R. (2012). Professionalism: What is it? *Canadian Medical Association Journal*. 184 (10), 1129-1130.
- Zandvoort, H., van der Poel, I. & Brumsen, M. (2000). Ethics in the engineering curricula: topics, trends and challenges for the future. *Journal of Engineering Education*, 25 (4), 291-302.

MENTORING AND COACHING IN A PUBLIC SECTOR DEPARTMENT IN SOUTH AFRICA

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ABSTRACT

Literature purports that mentoring and coaching are useful tools to develop and retain staff, but they are not without their challenges. Of crucial importance is the relationship between mentor/coach and protégé. Anything that negatively affects this relationship puts the entire mentoring/coaching initiative at risk. By means of a cross sectional survey utilising a customised measuring instrument, ten null hypotheses were tested at a South African Public Sector department concerning aspects surrounding mentoring and coaching. Findings reveal that gender had no influence on the mentoring or coaching relationship and that coaching was not seen as contributing to staff development. These findings are in contrast with contemporary literature on mentoring and coaching

INTRODUCTION

In the public sector, service delivery is of cardinal importance. Public sector institutions often need to invent solutions in order to appease their constituents. Allio (2009) states that leaders are often challenged “to do the right thing” as opposed to “doing things right”, which implies integrity and ethical behaviour. With on-going corruption scandals, this is an area that warrants close scrutiny in the public sector. Many organisations are experiencing “organisational flattening”, as continual restructuring and change results in wider spans of control. This could result in increasing unfilled leadership positions and a shrinking pool of leaders (Lawrence, 2008). A return to more traditional staff training and development methods – mentoring and coaching in particular – could contribute to incubating competent managers and leaders. In the wake of the global financial crisis, organisations have been forced to cut costs, resulting in training and development budgets being slashed. Mentoring and coaching (M&C) provide an opportunity to develop and train potential leaders inexpensively. Furthermore, M&C provides development opportunities tailored to the individual and specific context of work, something that more “formal” training and development interventions are not capable of.

AN OVERVIEW OF RELEVANT LITERATURE

Terblanche (2009) highlights some issues contributing to the labour challenge in South Africa. These include, *inter alia*, a large pool of unskilled labour, a shortage of a skilled labour, and the emigration of skilled employees; resulting in a skills deficit of skilled human capital. This necessitates the HR function in organisations to become more involved in training and development of human capital (White, 2008). From a macro perspective, the skills deficit has been a contributing factor in the development of the Skills Development Act of 1998, the Skills Development Levies Act of 1999, the National Skills Development Strategy of 2001, the Human Resource Development Strategy of 2001 and the Joint Initiative for Priority Skills Acquisition. In 2008 South Africa ranked 118th out of 130 countries proclaiming to be actively investing in talent management (Grobler & Diedericks, 2009). This is alarming and demonstrates that there is much debate but little action on this issue. There are calls to include leadership development in MBA and other formal education programmes globally (Hay & Hodgkinson, 2005). However, calling for the formal education sector to resolve the issue could be seen as ‘passing the buck’, as organisations need to take the lead to help address the situation. According to Zauszniewski (2009), M&C are important tools to help recruit, develop and retain employees. Calo (2008) also emphasises the importance of skills transfer and development for a new generation of employees, especially in the light of the aging baby boomer generation, who are nearing retirement age and taking with them knowledge and experience which could be lost if contingencies are not put in place. Calo (2008) purports that that it is not surprising that M&C are probably

the most effective ways of transferring explicit and tacit work-related knowledge from one person to another, as it helps foster close personal relationships between colleagues and it also helps in creating a positive organisational culture. Although often used interchangeably, there are fundamental differences between the acts of mentoring and coaching. This shall now be elaborated upon.

Mentoring

Parker, Hall, and Kram (2008) purport that mentoring has become a popular term when career development is discussed in organisations. To enhance skills at managerial level in organisations, executive mentoring programs have gained popularity, despite organisations not investing enough energy in designing such programs properly (Allen, Eby & Lentz, 2006). Bhatta and Washington (2003) are of the opinion that mentoring is a key tool in helping employees experience career growth, in all sectors and industries. Noe, Hollenbeck, Gerhart and Wright (2006) concur, purporting that mentoring can be rewarding for both the mentor and the protégé in terms of career development. In a study conducted by Thomas and Cheese (2005), General Electric intentionally mentored employees to inculcate change throughout the organisation. Landale (2005) corroborates this, stating that executive mentoring has improved leadership qualities in multinational corporations globally. Moberg (2008) defines mentoring as the relationship between a senior, more experienced person who assumes the responsibility to develop a junior person. Gesme, Towle, and Wiseman, (2010) take a similar stance, stating that mentoring entails providing guidance, assisting in self-discovery and career development. Finding the right mentor-mentee combination is critical, as both mentor and mentee have expectations (Bluckert, 2006; Zauszniewski, 2009). Furthermore, these expectations should be formalised in the form of written agreements. Pokora and Connor (2007) concur with this notion of formalisation, as the 'return on investment' should be visible and agreed upon by those involved in the mentoring initiative. Formalising the process also gives direction and provides deliverable to the process, thus making it more measurable (Pokora & Connor, 2007). However, formalising the process could distract from the actual mentoring experience, especially if the mentor or the mentee is too focused on the framework devised. Waddell and Warnock (2006) also stress that the mentor-mentee relationship should be take care of career development needs of the mentee, while also taking into account and giving credit to the time consumed by the mentor.

Hansford and Ehrich (2005) state that the advantages associated with M&C outweigh the disadvantages. For the mentee these advantages include support from more experienced staff, freedom to share ideas and professional development, while for mentors, networking, professional development, the opportunity to reflect, exposure to new ideas and the opportunity to give back to the profession are advantages (Hansford & Elrich, 2005). As for the organisation, improved employee retention, management continuity, improved communication and productivity are definite positive outcomes of mentoring (Hansford & Elrich, 2005). Mentoring does have drawbacks for the mentor, mentee and ultimately the organisation. Meyer and Fourie (2006) specify possible disadvantages which could stem from the mentor-mentee relationship, these include over-protection by mentor; ego drives of mentor and mentee; mentor trying to "clone" the mentee; workload; inflexibility of mentor; manipulation by mentee, and mentee over dependence. In addition to this, Hansford and Elrich (2005) warn that mentoring can become superficial, especially when people assigned as mentors are not suitable mentors. These pitfalls can negate the advantages of mentoring highlighted above.

Coaching

In contrast to mentoring, coaching is concerned with facilitating professional change and human development (Scamaro & Harden, 2007). Wright (2005) purports that coaching provides support to enhance skills, resources, and creativity that people already possess. Coaching has transcended sport and life coaching; it has become an important facet of staff development (Lloyd & Rosinski, 2005). Coaching also requires a trust relationship to be built between coach and protégé (Zauszniewski, 2009; Stead, 2005). The fundamental difference between mentoring and coaching, however, is that coaching focusses on helping the protégé to learn how to achieve more, whereas the aim of mentoring is to act as a resource at the disposal of the mentee (Wright, 2005). Baron and Morin (2009) purport that coaching aims to increase employees' work performance, whereas mentoring addresses a larger set of issues related to the protégé's life inside and outside the organisation. Coaching seems to focus on optimal and efficient achievement of work related performance targets, thus narrowly focussed on performance whereas mentoring seems to be a more holistic approach focussing more on the attitudinal and behavioural level. The advantages and drawbacks of coaching are similar to the advantages and drawbacks of mentoring discussed in the previous section.

Challenges facing successful mentoring and coaching

According to De Vries, Webb and Eveline (2006), M&C of female employees can contribute to transforming a workplace often characterised by male dominance and discrimination. In most industries, senior management is still a male dominated environment, and thus very often the coach would be male and the protégé female, creating tension in a sexualised work environment; something that should not be ignored or downplayed (Morgan & Davidson, 2008). The situation is not unique to gender. Moore, Miller, Pitchford and Jeng (2007) purport that often it is difficult to find willing coaches from previously disadvantaged groups and that protégés would often choose coaches who they can relate to in terms of race, background and cultural belief. Moore et al. (2007) further state that there are fewer previously disadvantaged role models as opposed to their white counterparts, and that racial and ethnic lines should not be undermined in the coach-protégé relationship.

THE RESEARCH SETTING

This study was done in the Gauteng Department of Economic Development (GDED), a department of the Gauteng Provincial Government. The GDED was established following the decision in 2007 to split the Gauteng Department of Finance and Economic Affairs (GDFEA) into two separate departments: the Gauteng Treasury and GDED. Most of the old GDFEA was absorbed into the Gauteng Treasury and therefore the establishment of the new, autonomous GDED within the Gauteng Government did not progress without challenges in terms of attraction, development and retention of staff. GDED is in the process of attracting new skills, especially on leadership level, which is an expensive endeavour and efficient performance of new staff is not guaranteed.

RATIONALE AND METHODOLOGY EMPLOYED

The GDED has prioritised the attraction, development and retention of skills. Literature purports that mentoring and coaching (M&C) could be useful mechanisms in the development and retention of staff. However, literature also suggests that M&C is not without its' pitfalls. Amongst others, cultural differences, gender differences, ethnic differences and preparedness of the mentor or coach could negatively affect the mentor-mentee (or coach-protégé) relationship. Furthermore, the commitment of top management to M&C initiatives is crucial for results to be forthcoming from M&C initiatives. M&C initiatives are often undertaken haphazardly and without the necessary planning of a workable M&C process. Based on this research problem, the objectives of this study are:

- To ascertain if the GDED ascribes importance to M&C as tools to develop and retain staff [O1].
- To determine whether differences between mentor/coach and protégé has a detrimental effect on the mentor-mentee or coach-protégé relationship [O2].

In order to achieve O1, the following research question is posed:

How does the GDED view mentoring and coaching as mechanisms to help develop and retain staff?

To address O2, the following null-hypotheses were constructed to be tested at the GDED:

H_{0.1}	<i>There is an association between ethnicity of the mentor and the mentor-mentee relationship</i>
H_{0.2}	<i>There is an association between ethnicity of the coach and the coach-protégé relationship</i>
H_{0.3}	<i>There is an association between gender of the mentor and the mentor-mentee relationship</i>
H_{0.4}	<i>There is an association between gender of the coach and the coach-protégé relationship</i>
H_{0.5}	<i>There is an association between cultural differences and the mentor-mentee relationship</i>
H_{0.6}	<i>There is an association between cultural differences and the coach-protégé relationship</i>
H_{0.7}	<i>There is an association between the learning experience and differences that exist between mentor and mentee in terms of gender, ethnicity or culture</i>
H_{0.8}	<i>There is an association between the learning experience and differences that exist between coach and protégé in terms of gender, ethnicity or culture</i>
H_{0.9}	<i>There is an association between mentoring and staff development</i>
H_{0.10}	<i>There is an association between coaching and staff development</i>

The study employed a quantitative approach. As quantitative research tests hypotheses derived from a theoretical background (Lancaster, 2005), it was deemed appropriate for this study. The study furthermore employed a cross sectional, survey design, where primary data was gathered by means of a structured

questionnaire. The research population was managerial staff within GDED. As the likelihood is greater that people on managerial level have a greater understanding of, and experience with, M&C, this group of GDED employees was deemed most appropriate. The entire management population (128 people in total) in GDED was targeted, thus no sample was selected. A customised measuring instrument was developed derived from literature. The questionnaire consisted of three sections. Section 1 gathered demographic data, Section 2 solicited both nominal and continuous data, to ascertain whether importance is attached to mentoring and coaching at GDED, in line with O1. Section 3 consisted of 12 items to assess whether demographic differences impact on the mentor/coach-protégé relationship at the GDED, in line with O2. These items solicited continuous data.

The questionnaire was distributed by the researcher, who personally followed up outstanding questionnaires and collected all completed questionnaires. SPSS was used to analyse the data. As Section 2 and Section 3 employed different levels of measurement, the analysis thereof will be discussed separately:

Section 2: Analysis for this section involved:

- The internal reliability of the Likert-scale items was assessed by means of the Cronbach's-Alpha coefficient to ensure that the same constructs yield consistent results over time (Black, 2002).
- Frequency distributions to illustrate the importance the GDED ascribes to M&C

Section 3: This section addressed O2 (to determine whether demographic differences between mentor/coach and protégé had a detrimental effect on the mentor-mentee or coach-protégé relationship); which entails testing the ten stated null-hypotheses. This section consisted of 12 items measured nominally. Chi-squared analysis was employed to test the stated null-hypotheses at a 95% confidence level.

PRESENTATION AND DISCUSSION OF FINDINGS

The survey realised 106 usable questionnaires (82.8% response rate). The majority of the respondents were African Males between 30 and 39, with a post graduate qualification in the employ of GDED for 5 years or less (79%, showing high staff turnover). Gender distribution is more male dominated and ethnicity is more or less reflective of the distribution in the country. .

O1, addressed in Section 2 of the questionnaire, endeavoured to ascertain if the GDED ascribes any importance to mentoring and coaching as tools to develop and retain staff. However, Section 1 also contained some questions pertaining to respondents' views on mentoring and coaching. This information is insightful as it shows respondents opinion of and experience with mentoring and coaching, as reflected in Table 1.

TABLE 1: Evidence of and importance attached to mentoring and coaching

Item	Yes	No		
Has the respondent ever been mentored?	53%	47%		
Has the respondent ever been coached?	51%	49%		
Has the respondent ever acted as a mentor?	47%	53%		
Has the respondent ever acted as a coach?	56%	44%		
Item	Extremely important	Important	Of little importance	Don't know
Mentoring as staff developmental tool is...	70%	20%	0%	10%
Coaching as staff developmental tool is...	62.3%	31.1%	1%	3.8%

Approximately half of the respondents have been mentored or coached at some stage of their careers. Similarly, just over half of the respondents have acted as mentors or coaches at some stage of their careers. The questionnaire was not designed to measure how many of those who had received mentoring/coaching themselves became mentors/coaches, so one has to assume that some of the people who have mentored or coached never received any mentoring or coaching themselves. Rather unsurprisingly, respondents are of the opinion that mentoring and coaching is of vital importance for the development of staff. As far as the importance of mentoring and coaching for the GDED is concerned, Table 2 presents the relevant data.

TABLE 2: The importance attached to mentoring and coaching at the GDED

Item	Yes	No
Do staff development programs exist?	34%	66%

Are succession strategies in place?	8%	92%			
Item	Strongly agree	Agree	Don't know	Disagree	Strongly disagree
Staff development can be improved	49%	49%	0%	2%	0%
Mentoring and coaching, could help retain staff.	25%	42%	5%	22%	6%
Senior managers view mentoring as important	2%	15%	37%	31%	15%
Senior managers view coaching as important	0%	15%	37%	29%	21%

The Cronbach's-Alpha coefficient was calculated for the items in this construct measuring continuous data. Thus, for the four items in this construct employing a Likert-scale, the Cronbach's-Alpha was 0.804, indicating a high level of internal reliability between these items. One third of the respondents were of the opinion that staff development initiatives exist in the GDED. Upon closer scrutiny, those respondents that answered "yes" came from the ranks of top management. One can deduce that what top management intend as staff development initiatives are not perceived as such by middle and supervisory level management. As for succession planning, 8% respondents were of the opinion that succession strategies exist. This is alarming, as it can hinder continuity within the GDED, especially against the backdrop of high staff turnover. 98% of the respondents felt there is room for improvement in terms of staff development at the GDED. Furthermore, although 67% of respondents feel M&C can be used as tools to retain staff, 17% of respondents feel that the GDED top management ascribes value to M&C, which seems to suggest that some of the respondents that occupy top management positions at GDED are of the opinion that little value is ascribed to M&C.

Even though it could be argued that this finding is offset by the 37% of respondents who were indifferent to the importance top management places on mentoring and coaching at the GDED, there is still enough evidence to suggest that the GDED does not attach much value to M&C as tools to develop and retain staff. However, the findings do show that many respondents, who themselves occupy management positions within the GDED, are of the opinion that M&C could potentially be useful developmental tools. This could indicate a personal appreciation of the value of M&C, but on a systemic level the GDED does not attach much value to these mechanisms. O2 tried to determine whether demographic differences between mentor/coach and protégé had a detrimental effect on the mentor-mentee or coach-protégé relationship.

Findings pertaining to ethnicity: 87% of respondents do not feel that it is necessary to be mentored by a person of the same race. $\chi^2 = 0.006$ and $p = 0.938$, thus the association between mentoring and ethnicity is not statistically significant. In terms of coaching, the findings also show that 87% of respondents deem it unnecessary to be coached by a person of the same race. $\chi^2 = 0.006$ and $p = 0.938$, thus the association between coaching and ethnicity of the coach is not statistically significant.

Findings pertaining to gender: 93% of respondents felt that the gender of the mentor had no effect on the mentor-mentee relationship. $\chi^2 = 6.096$ and $p = 0.000$, implying a statistically significant association between mentoring and gender of the mentor. $\phi_c = 0.059$, however, signifies that this association is a slight one. In this study, therefore, gender does impact on the mentor-mentee relationship. As far as coaching and gender of the coach is concerned. 91% of respondents believe that gender does not play a role in coaching. $\chi^2 = 7.779$ and $p = 0.005$, indicative of a statistically significant association between coaching and gender of the coach exists. $\phi_c = 0.246$, denoting that the association between mentoring and the gender of the coach is low.

Findings pertaining to the learning experience gained: 89% of respondents felt that learning had nothing to do with the ethnicity of the mentor. $\chi^2 = 0.186$ and $p = 0.666$, thus the association is not statistically significant. 91% of respondents, similarly felt that the ethnicity of the coach had no effect on learning. $\chi^2 = 0.005$ and $p = 0.943$, indicating no statistically significant association between these variables.

Findings pertaining to cultural differences: 54% of respondents felt that cultural differences had no effect on the mentor-mentee relationship. $\chi^2 = 3.153$ and $p = 0.076$, therefore no statistical significance exists for this association. 58% of respondents felt that the coach-protégé relationship is not effected by cultural differences. With $\chi^2 = 3.532$ and $p = 0.060$, this association bears no statistical significance.

Findings pertaining to leadership development: 94% of respondents were of the opinion that mentoring could foster staff development. $\chi^2 = 2.257$ and $p = 0.133$, thus this association has no statistical significance. 90% of respondents were of the opinion that coaching could develop staff. $\chi^2 = 4.057$ and $p = 0.044$, thus this association does exhibit statistical significance. Furthermore, $\varphi_c = 0.279$, denoting a low association between coaching and staff development.

CONCLUSIONS RESULTANT FROM THE STUDY

O1 set out to ascertain if GDED ascribes any importance to mentoring and coaching as tools to develop and retain staff. The data leads one to conclude that the GDED does not seem to attach much value to M&C as mechanisms to help develop and retain staff, although individual respondents tend to exhibit a personal belief that M&C has the potential to be beneficial to GDED. O2 endeavoured to determine whether demographic differences between mentor/coach and protégé have a detrimental effect on the mentor-mentee or coach-protégé relationship. Table 4 presents a summary of the main conclusions pertaining to the stated null-hypotheses.

TABLE 4: Summary of main findings

Ho	Main finding	Outcome
$H_{0,1}$	$\chi^2 = 0.006$, $p = 0.938$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,2}$	$\chi^2 = 0.006$, $p = 0.938$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,3}$	$\chi^2 = 6.096$, critical value = 1.66, $p = 0.000$ Statistically significant. $\varphi_c = 0.059$; little association	$\chi^2 >$ critical value, Reject null-hypothesis
$H_{0,4}$	$\chi^2 = 7.779$, critical value = 2.08, $p = 0.005$ Statistically significant. $\varphi_c = 0.246$; low association	$\chi^2 >$ critical value, Reject null-hypothesis
$H_{0,5}$	$\chi^2 = 3.153$, $p = 0.076$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,6}$	$\chi^2 = 3.532$, $p = 0.060$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,7}$	$\chi^2 = 0.186$, $p = 0.666$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,8}$	$\chi^2 = 0.005$, $p = 0.943$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,9}$	$\chi^2 = 2.257$, $p = 0.133$. Not statistically significant	Cannot reject null-hypothesis
$H_{0,10}$	$\chi^2 = 4.057$, critical value = 2.12, $p = 0.044$ Statistically significant, $\varphi_c = 0.279$; low association	$\chi^2 >$ critical value Reject null-hypothesis

Therefore, $H_{0,3}$, $H_{0,4}$, and $H_{0,10}$ can be rejected. All the other stated null-hypotheses cannot be rejected as the associations were not statistically significant as $p > 0.05$. This study affirms that:

- Gender of the mentor has no influence on the mentor-mentee relationship
- Gender of the coach has no influence on the coach-protégé relationship
- Coaching does not seem to develop staff

This seems to contradict literature on the topic, that states that gender can a sensitive issue as far as M&C is concerned. Also, although respondents viewed coaching as a mechanism that has potential in terms of staff development, the data reveals that they do not think it actually lives up to this potential. Although data pertaining to seven of the stated null-hypotheses turned out not to be statistically significant, one should always bear in mind that statistical significance means that there is not enough evidence to suggest that the stated null-hypothesis can or cannot be rejected. However, the distribution tables suggest that ethnicity and cultural differences might not play a role in the mentor-mentee and coach-protégé relationship.

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH

From the perspective of GDED, this study underscores the sentiment that too much debate surrounds M&C as mechanisms to facilitate staff retention and staff development. Especially seen against the backdrop of high staff turnover at GDED (as 79% of respondents had been employed at GDED for 5 years or less), the Department needs to prioritise measures to develop and retain staff. This issue is even more cardinal, given as GDED is in the process of trying to attract new, skilled staff. It would be futile to staff if GDED has no strategies in place to make sure incumbents do not leave after a short tenure. This obviously has associated hidden costs which any Government Department (provincial or otherwise) can ill afford. This study has proven that for managers of GDED, gender has no bearing on coach-protégé or mentor-mentee relationship. Furthermore the study also suggests (although not conclusively) that ethnicity and cultural differences might not play a role in the mentor-mentee or the coach-protégé relationship. This is insightful, as literature purports the opposite. Therefore, this implies that M&C endeavours do not need to be designed with careful consideration to matching mentor and mentee (or coach and protégé) in terms of gender, ethnicity and cultural differences. What seems to be more important would be a match between the two personalities involved and the learning the mentee/protégé stands to gain from the relationship. This is even more important in the over-politicised, South African environment, where things are often done to seem politically correct, rather than to achieve a common goal. The findings of this study seem to call for a digression from this course of action.

As this study has produced findings that seem to contradict literature, the measuring instrument can be reconsidered to measure more dimensions of M&C. This measuring instrument should be applied to a larger sample in order to reach conclusive findings on the issue of mentoring and coaching. As a case, the importance attached to M&C at GDED acts as supporting evidence of how M&C are overlooked as valuable tools to help develop and retain staff. Gaining insights into multiple contexts would illuminate this issue even more.

REFERENCES

- Allen, T.D., Eby, L.T. and Lentz, E. (2006). Mentorship behaviours and mentorship quality associated with formal mentoring programs: closing the gap between research and practice. *Journal of Applied Psychology*, 91(3):567-578.
- Allio, R.J. 2009. Leadership – the five big ideas. *Strategy & Leadership*, 37(2):4-12.
- Baron, L. and Morin, L. (2009). The coach-coachee relationship in executive coaching: a field study. *Human Resource Development Quarterly*, 20(1):85-106.
- Bhatta, G. and Washington, S. (2003). Hands up: mentoring in the New Zealand public service. *Public Personnel Management*, 32(2):211-227.
- Black, T.R. (2002). *Understanding social science research*. London: Sage Publications.
- Bluckert, P. (2006). *Psychological dimensions of executive coaching*. New York: McGraw-Hill.
- Calo, T. J. (2008). Talent management in the era of the aging workforce: the critical role of knowledge transfer. *Public Personnel Management*, 37(4):403-416.
- De Vries, J., Webb, C. and Eveline, J. (2006). Mentoring for gender equality and organisational change. *Employee Relations*, 28(6):573-587.
- Gesme, D.H., Towle, E.L. and Wiseman, M. (2010). Essentials of staff development and why you should care. *Journal of Oncology Practice*, 6(2):104-106.
- Grobler, P.A. and Diedericks, H. (2009). Talent management – an empirical study of selected South African hotel groups. *South African Business Review*, 13(3):1-27.
- Hansford, B. and Ehrich, L.C. (2005). The principalship: How significant is mentoring? *Journal of Educational Administration*, 44(1):36-52.
- Hay, A. and Hodgkinson M. (2005). Rethinking leadership: A way forward for teaching leadership? *Leadership and Organisational Development Journal*, 27(2):144-157.

- Lancaster, G. (2005). *Research methods in management*. Oxford: Elsevier.
- Landale, A. (2005). Managers become leaders at NDS. *Human Resource Management International Digest*, 13(7):15-18.
- Lawrence, R. (2008). Executive mentoring: turning knowledge into wisdom. *Business Strategy Series*, 9(3):126-131.
- Lloyd, B. and Rosinski, P. (2005). Coaching, culture and leadership. *Team Performance Management*, 11(3/4):133-138.
- Moberg, D. (2008). Mentoring and practical wisdom: Are mentors wiser or just more politically skilled? *Journal of Business Ethics*, 83:835-843.
- Moore, A.A., Miller, M.J., Pitchford, V.J. and Jeng, L.H. (2007). Mentoring in the millennium: new views, climate and actions. *New Library World*, 109(1/2):75-86.
- Morgan, L.M. and Davidson, M.J. (2008). Sexual dynamics in mentoring relationships – a critical review. *British Journal of Management*, 19(S):120-129.
- Noe, R.A., Hollenbeck, J.R., Gerhart, B. and Wright, P.M. (2006). *Human resource management*. Boston: McGraw-Hill.
- Parker, P., Hall, D.T. and Kram, K.E. (2008). Peer coaching: a relational process for accelerating career learning. *Academy of Management, Learning & Education*, 7(4):487-503.
- Pokora, J. and Connor, M. (2007). *Coaching and mentoring at work- developing effective practice*. Chicago: McGraw Hill Education.
- Scamaro, M. and Harden, S.C. (2007). A manager coaching group model: applying leadership knowledge. *Journal of Workplace Behavioural Health*, 22(2/3):127-143.
- Stead, V. (2005). Mentoring: A model for leadership development? *International Journal for Training and Development*, 9(3):170-184.
- Terblanche, W. (2009). Demand for actuarial resources in South Africa. *South African Actuarial Journal*, 2009:1-52.
- Thomas, R.J. and Cheese, P. (2005). Leadership: Experience is the best teacher. *Strategy and Leadership*, 33(3):24-29.
- Waddell, J. and Warnock, G.L. (2006). Developing a culture of mentoring. *Canadian Journal of Surgery*, 40(3):164-165.
- White, J. (2008). Human resources: a need to redefine itself. *Management Today*, 24(8):1-54.
- Zauszniewski, J.A. (2009). Mentoring our next generation: time to dance. *JCAPN*, 22(3):113-114.

ECONOMIC CAPITAL FORMATION WITHIN AN ENTREPRENEURSHIP VENTURE

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ABSTRACT

This study was motivated by the priority placed by the South African Government on the development of small enterprises, the rapid business growth, and the need to provide information to entrepreneurs in a developing country. The purpose was to determine the sufficiency of the economic capital formation process in a selected dental laboratory to support growth and sustainability. The research design aimed to collect economic longitudinal data on one dental laboratory over the period 2001 to 2011. The results revealed that the dental laboratory has adapted well and positioned itself to survive and grow financially.

INTRODUCTION

The relevance of this study derived firstly, from the priority placed by Government on the development of small, medium and micro-sized enterprises (SMME) in South Africa. Ipso facto this implies a need for available information that can be accessed by other SMMEs to learn from, adopt or apply in their own business endeavors. Secondly, this case is of particular interest because of the dental laboratory's (DL) rapid business expansion and growth over a relatively short time-span of 16 years. It transformed itself from a stable, but small, DL to one of the biggest DLs in the Tshwane Metropolitan area, positioning itself as an interesting case study of a successful business venture. Thirdly, this case is able to provide valuable information for prospective entrepreneurs in a developing country such as South Africa. The business venture was launched from a financial constraint basis and the entrepreneur did not come from a renowned entrepreneurial background.

PROBLEM STATEMENT

The research problem was formulated as "Does the DL optimize its resources sufficiently, as reflected in economic capital formation, to support the sustainability and growth of the business?"

PURPOSE

The purpose of this research was to determine the sufficiency of the economic capital formation process in a selected DL to support growth and sustainability. Economic capital formation was evaluated in terms of investment, allocation of economic resources and economic health as part of a bigger investigation to determine the adequacy and configuration of four critical capitals (social, cultural, economic and strategic capital) in the Entrepreneurship-in-network model that influences the adaptability and growth potential of the selected DL.

SCOPE

The research was conducted as a sub-division of a greater study in which the adaptation and fixation of the DL was investigated over its total lifespan using the Entrepreneurship-in-network model as theoretical framework. This paper will only focus on the financial capital formation process that occurred during this period. The economic capital was evaluated in terms of the real financial performance of the DL and compared with what was considered to be a financially healthy business. All financial variables were measured at ex post facto level.

THE ENTREPRENEURSHIP-IN-NETWORK THEORETICAL FRAMEWORK

An adapted Entrepreneurship-in-network model was adopted as framework based upon a synthesis derived from studying four clusters of entrepreneurship models:

- Cluster 1: The process models include the pursue-opportunity models of Baron and Shane (2008), Van der Veen and Wakkee (2004), and Deakins and Whittam (2000) respectively, the life cycle models of Granlund and Taipaleenmäki (2005), Kuratko and Hodgetts (2004), Robbins (1994), Victor and Boynton (1998), Miller and Friensen (1984), and Quinn and Cameron (1983), the entrepreneurs events model of Bygrave (1989), and the resource-based cumulative model of Harber and Reichel (2007). These models emphasised key activities that need to be performed in pursuit of new user-value by an entrepreneur in discrete defined phases of a business. However, the models ignore the dynamic nature of a changing environment, challenges and tasks that may unfold in multiple ways. The models are also not able to accommodate periods of non-growth or reversal of growth as an option for survival;
- Cluster 2: The interaction or relationship models including the structural network models of Groen (2005), Van der Veen and Wakkee (2004), Håkansson and Snehota (1995), and Håkansson (1989), the social identity models of Highhouse, Thornbury and Little (2007), Korte (2007), Van Knippenberg and Hogg (2003); and Tajfel (1972), the social systems models described by Bjerke (2007), Parsons (1964) and Parsons, Shils and Tolman (1951), and the regulatory focus model described by Brockner, Higgins and Low (2004). Interaction or Relationship models recognize that inter-business relationships are intrinsic to business success. A relationship is considered as a *mutually oriented interaction between two reciprocally committed parties implying mutual orientation and commitment over time* (Håkansson & Snehota, 1995, p. 25). These relationships and their effects to other important business constructs such as business opportunity recognition, opportunity preparation, opportunity exploitation and the utilization of the various types of capital are important; and
- Cluster 3: The economic models including the transactional cost models described by Hogg (2007), Michael (2007), and Coase (1937), and the Heterodox emerging model described by Minniti and Lévesque (2008). These models evaluate the economic performance of a business within a macro-economic environment and within bounded rationality.

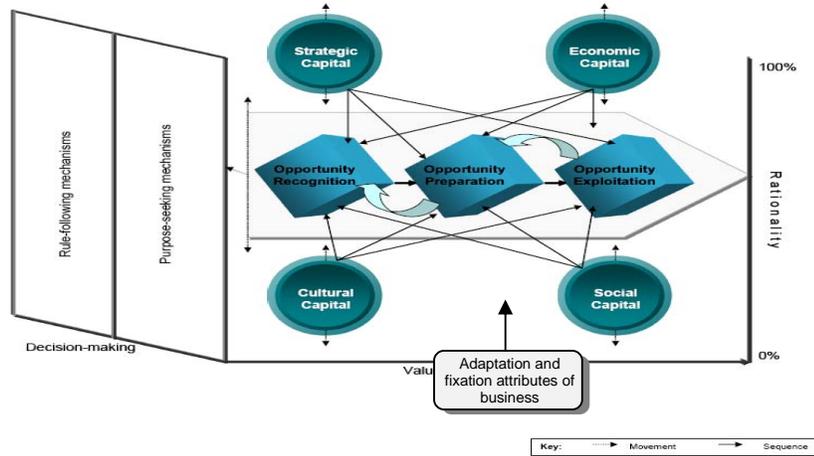
The adapted Entrepreneurship-in-network framework adopted in this research (Figure 1) gives an indication of its stochastic nature as all components (actions to be conducted, resources, the behaviour of the actors, the interactions between the actors and the situation) are dynamic, heuristic and biased. Everything that occurs within the model is based on bounded rationality - a decision-making mode that varies between rule-following behaviour and purpose-seeking behaviour - and within a timeframe. It accommodates reverse processes that may influence the outcome of opportunity-seeking behaviour. The adapted model is highly complex as it displays a probability nature and not a deterministic nature. Furthermore, a possibility of greater variation and multidirectional development, as well as adaptation paths, can be followed. The possibility of multi-directional paths is supported by Achtenhagen, Melin and Naldi (2010) who stated that, unlike the suggestion of many models of organisational growth, even growing firms do not display unidirectional development paths.

Implicit in this model is that entrepreneurship is by its nature a social act within a specific type of social structure which creates value for the market place. As such entrepreneurship is on the one hand an order-creating (creating a new equilibrium) act, and on the other hand an act that results in creating new contingencies. While the entrepreneur remains the main driver of the entrepreneurial process, careful consideration of the influence of interacting actors and institutions influences the entrepreneur in his decision on what the business ought to be (identity) or ought to do (acceptable value to produce). In this regard, Hoang and Antoncic (2003) identify three critical elements, namely: the nature of the content that is exchanged between actors; governance mechanisms in relationships; and the network structure created by the cross-cutting relationships between actors to explain entrepreneurial outcomes.

In the Entrepreneurship-in-network approach as put forward by Van der Sijde (2007), interaction of actors takes place with regard to opportunity recognition, opportunity preparation and opportunity exploitation, all of which subsequently lead to value creation. This model does not represent a linear process, because changing circumstances may require the entrepreneur to re-evaluate decisions made in earlier stages. Mechanisms contained in the definition by Parsons, Shils and Tolman (1951) and Fry, Stoner and Hattwick (1998), showed that interaction between actors striving for goal attainment, optimization of processes, maintenance of patterns and institutionalization of shared symbols produce their own specific

types of capital needed in the business. Each of these mechanisms is related to specific types of capital: interaction between actors is linked to a social capital; goal attainment is linked to strategic capita; optimization of processes is linked to economic capital; and maintenance of patterns and institutionalization of shared symbols is linked to cultural capital.

FIGURE 1: Adapted Entrepreneurship-in-network model



An assumption is made that a business needs sufficient *capital* to be sustainable over time and that a business has to be in possession of sufficient *capital* in all four areas (social, strategic, economic and cultural) to be viable and successful. Further, for a business to be sustainable and to grow an entrepreneur needs to achieve value-creation continually. This is the reason for adding a value-creation-over-time dimension to the Entrepreneurship-in-network model.

Economic capital refers to one of four domains. These domains are economic conditions, investment, allocation of funds or economic resources and the state of health of the financial capital in a business (Du Toit, 1979; Lambrechts, Reynders & Scheurkogel, 1979). The first domain relates to the general conditions of the macro-economy that include amongst others interest rates, inflation rates and general business conditions that exist in the economy and may influence business decisions. The second domain relates to the investment component which refers to the actual utilization of funds for productive purposes to procure economic objects such as fixed assets and technology. The purpose of investment is to achieve a higher turn-over and/or lower cost structure, and secure higher profit margins through the procurement of fixed and floating assets. The third domain refers to the allocation of economic resources. This includes how profits or savings are deployed to create income for the business. The fourth domain refers to the economic health of a business in terms of its market value, solvency, liquidity and owner control.

RESEARCH DESIGN AND METHODS

The research design aimed to collect economic longitudinal data on one DL over a period of 16 years divided into two discrete periods. The DL was selected as most suitable to justify the research using a criterion-based benchmark approach of state-of-the-art technology employed; spectrum of dental speciality services provided; the four critical types of capital relevant to the study; and the lifespan of the business. All economic variables were measured at ex post facto level. The concept “Economic capital” included the three domains defined by Lambrechts, Reynders and Scheurkogel (1979), and Du Toit (1979) as general economic conditions, investment, allocation of funds or economic resources and the state of health of the financial capital in a business. The first domain relates to the investment component that is the actual utilization of DL funds for productive purposes to procure fixed assets and technology. To analyze the investment profile of the DL five (5) components were investigated namely, cash in hand; overdraft facilities utilized; loans; outstanding debtors; and investment capital. In addition to cash in hand, the researcher will also determine how many days’ worth of cash PDL has available to cover its monthly operational costs. This will be done according to the following formula:

Days to deplete cash = (Cash in hand at the end of period/monthly operational expenses) x 30 days.

The second domain refers to Performance indicators concerned with turnover, gross profit, profit before tax and profit margins. This domain focused on financial achievement. The third domain refers to the economic health of the DL in a particular phase in terms of the indicators solvency, liquidity and owner control.

In order to protect the intellectual property of the DL all data was be transformed according to a standardized formula that treated all data in a similar fashion. This made it impossible for the public to calculate the investment data of the DL. The purpose of an analysis of the investment profile of the DL was to form a picture of the turnover, cost structure and profit margins by procuring fixed and floating assets.

FINDINGS AND RECOMMENDATIONS

For this research the phases 2001 to 2005 and 2006 to 2011 were analyzed. The year 2001 was taken as base year and received an indicator value of one (1). The only exception is cash in hand where 2009 was chosen as base year.

Investment Profile

In this section the actual utilization of DL funds for productive purposes are presented (Table 1). The five (5) components analyzed in the investment profile are summarized in Table 1 under the same headings.

- **Cash in Hand**

Data was not available for the period 2001 to 2008. Since 2009 the cash in hand of the DL has increased significantly. For the period 2009 to 2010 the cash in hand increased by 77% while the cash flow for the period 2010 to 2011 increased by 508% over a year-on-year basis. The implication is that the DL is well positioned to manage immediate business risks and to exploit new business opportunities. Further analysis to determine how much cash the DL needed to pay current invoices, using the average number of days it would take to deplete the cash was calculated by dividing the total cash available at the end of the period by the average cash expenses per day. In 2009 the DL had 33.9 days available to deplete its cash in hand. In 2010 the DL had 29.5 days available and for 2011, 96.5 days. Since 2009 the number of days has increased by 284.7%. The result implies that the DL was in a reasonable position to fulfill its short-term commitments (Table 1).

- **Overdraft Facilities Utilized**

An overdraft facility refers to a source of short-term working capital funding for business expenses and is particularly useful to give a business greater financial freedom and flexibility. It is created when a borrower draws money against a previously established line of credit. The basic cost to the borrower is the interest levied on the daily overdraft balance. For short term working capital funding, the figures in the overdraft facility provide an indication of whether cash flow in a business is in good health or whether a cash flow problem exists (Overdraft, 2010). An overdraft facility closely relate to debtors, creditors, turnover, growth rate of the business and changes in the market. The researchers therefore analyzed overdraft facilities utilized in terms of the factors mentioned.

Table 1 indicates that the DL shows a decline in its dependency on overdraft facilities. In the period 2009 to 2011 it did not use overdraft facilities. This is an indication of a healthy cash flow. In 2001 to 2005 the business was partially dependent on overdraft facilities although over a year-on-year basis, the dependency declined indicating that the business was moving steadily towards a stronger cash flow. Also in 2006 to 2008 the business owner made use of overdraft facilities. The advantage of the overdraft position as experienced by the DL was that the business would not experience immediate cash flow problems and would not be refused credit by financial institutions. In the case of the DL the initial dependence on an overdraft facility could be attributed to its being a new business. A shortcoming of this analysis is its lack of predictive ability with regard to the cash doubt or cash security position of the DL. Due to limited data available further statistical analysis on predictions was not possible.

Table 1: Investment profile of Pretoria Dental Laboratory

PHASE	Year	Cash in hand	Overdra ft facilities	Loans	Outstandin g Debtors	Investment Capital
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			utilized			
PHASE 1	2001	-	1	1	1	1
	2002	-	0.64	3	1.25	1.13
	2003	-	0.53	3	1.30	1.18
	2004	-	0.49	3.66	1.35	1.26
	2005	-	0.13	5.66	1.38	1.08
	Average	-	0.54	3.27	1.26	1.13
PHASE 2	2006	-	0.02	5.66	1.44	1.26
	2007	-	0.64	5.66	1.69	1.18
	2008	-	0.19	5.66	1.82	1.58
	2009	1	0	5.66	2.08	3.75
	2010	1.77	0	0	2.36	5.66
	2011	11.54	0	0	2.96	9.62
	Average	2.39	0.14	3.78	2.06	3.84

From 2001 the overdraft facilities gradually decreased from 9.3% to less than 1% in 2005 as a percentage of turnover and over the period, 2009 to 2011 no overdraft facilities were called upon to cover operational costs. The increase in the overdraft in 2007 and 2008 was done in preparation for the acquisition of two laboratories that were bought in 2008 and 2009 respectively. The management of the overdraft as a percentage of turnover illustrates a controlled and responsible approach to utilization of external funding. The same trend is reflected in the overdraft as a percentage of gross profit. Even at its peak of 16.2%, overdraft facilities did not put a severe strain on the gross profit of the DL. Except for two years the gross profit percentage exceeded 30%, during which time the DL was able to achieve a growth rate of more than 20% per annum. This illustrates that overdraft facilities were used for expansion or for improvement and not for bail-out purposes.

- **Loans**

From 2001 to 2005 the DL gradually increased the loan base from 1% to 5.66%. The latter percentage was maintained until 2009. Since 2010 the DL did not depend on loans for production purposes (Table 1). At no stage did loans as a percentage of turnover exceeded 9% or a percentage of gross profit exceeded 12.5%, which reflects the approach of the business owner to finance the activities and expansion of the DL from self-generated funds.

- **Outstanding Debtors**

The number of outstanding debtors has shown an exponential increase since 2001. However, the research revealed that the number of outstanding debtors is well under control and that debtors managed as a percentage of turnover, as a percentage of gross profit, and as a percentage of profit before tax showed a steady decline. By 2011 debtors as a percentage of turnover had decreased from a high of 34.58% to a low of 15.02%. The improvement is more impressive when the number of debtors, as a percentage of profit before tax, is calculated. Debtors as a percentage of profit before tax decreased from 31% in 2001 to 7% in 2011.

- **Investment Capital**

Investment capital refers to money used by the DL to procure fixed assets. The data revealed too little was spent on the procurement of fixed assets over the period 2001 to 2008. However, since 2009 a strong increase in the procurement of fixed assets occurred (Table 1). The increased expenses can be explained in terms of the expansion of the DL when the dental service-base was enlarged. Another reason for the

relatively low investment in fixed assets can be explained in terms of the longevity of technologies utilized in a dental laboratory. Very little demand is made on replacement of existing technologies. Only moderate financial stress was exerted on the DL as the investment capital as a percentage of turnover ranged from 33.34% to 40.51% between 2009 and 2011. Investment as a percentage of gross profit in the same period ranged from 39.64% to 47.28%.

Generic Economic Health Profile

In this section the return on investment including return on equity, nett asset turnover and fixed asset turnover, as well as performance indicators including turnover, gross profit, profit before tax, and profit margin, and lastly the economic health indicators including solvency and liquidity of the DL will be discussed.

- **Return on Investment**

The return on equity (ROE) indicates that the DL has been an asset creator and that a healthy state of cash has been created from existing assets. Since 2001 to 2005 an average of 59.2 cents was generated for every one rand invested in the DL. From 2006 to 2011 the ROE increased as 80.72 cents were generated for every one rand invested. This indicated a relatively high efficiency rate in the DL that continued to grow as the DL matured. The exceptionally high ROE values in 2007 and 2008 were attributed to the procurement of new business acquisitions that were highly efficient at the time of acquisition. The same trend is reflected in the net asset turnover (NATO) and the fixed asset turnover for 2007 and 2008 (Table 2).

The NATO showed that the speed with which investments have translated into cash flow for the period 2001-2005 and 2006-2011 were high with an average of 300.97% in Phase 1 and an average of 300.98% in Phase 2 indicating a stable cash flow situation in the lifespan of the DL. These figures also showed that sales were active and that minimal cash was tied up in the DL to keep the business operational. According to these figures the DL should find it relatively easy to expand if it so desires. A disadvantage is that these high percentages may be indicative of inadequate investment in expansion or in modernization. However, on the positive side the fixed asset turnover supported the statement that sales generated by fixed asset investment were buoyant in phases 1 and 2 (Table 2).

Table 2: Return on investments

PHASE	YEAR	RETURN ON EQUITY (PROFIT BEFORE TAX/TOTAL EQUITY)	NETT ASSET TURNOVER	FIXED ASSET TURNOVER
PHASE 1	2001	46.05%	330.27%	2101.48%
	2002	51.35%	271.85%	2366.68%
	2003	52.31%	262.07%	2901.45%
	2004	62.77%	326.65%	4588.59%
	2005	83.50%	314.02%	4208.33%
	Average	59.20%	300.97%	3233.31%
PHASE 2	2006	92.20%	316.32%	4078.97%
	2007	138.96%	370.89%	6878.30%
	2008	113.85%	383.93%	7790.46%
	2009	61.41%	199.43%	1928.52%
	2010	58.72%	289.99%	5009.00%
	2011	61.17%	245.32%	718.59%
	Average	87.72%	300.98%	4400.64%

Table 3: Performance indicators

PHASE	YEAR	TURNOVER	GROSS PROFIT	PROFIT BEFORE TAX	PROFIT MARGIN %
PHASE 1	2001	1	1	1	8.17%
	2002	0.98	1.03	1.26	10.47%
	2003	0.95	1.06	1.34	11.48%
	2004	1.21	1.37	1.71	11.60%
	2005	1.20	1.48	1.96	13.36%
	Average	1.07	1.48	1.45	11.02%
PHASE 2	2006	1.26	1.19	2.53	16.37%
	2007	1.70	2.18	3.56	17.14%
	2008	1.87	2.38	3.90	16.98%
	2009	1.64	2.45	5.00	24.88%
	2010	3.01	4.41	7.21	19.58%
	2011	5.01	7.06	12.78	20.86%
	Average	3.48	4.52	7.28	30.32%

- Performance Indicators**

Using 2001 as a base year Table 3 revealed that with the exception of 2002 and 2003 the DL was able to maintain a positive growth in turnover, with an accelerated growth rate in phase 2.

Table 4: Economic health indicators

PHASE	YEAR	SOLVENCY (TOTAL DEBT/ TOTAL EQUITY)	LIQUIDITY (CURRENT ASSETS/ CURRENT LIABILITIES)	
		DEBT RATIO	CURRENT RATIO	ACID TEST RATIO
PHASE 1	2001	0.60 :1	2.40 : 1	No inventory
	2002	0.52 : 1	3.08 : 1	
	2003	0.47 : 1	3.40 : 1	
	2004	0.34 : 1	4.48 : 1	
	2005	0.42 : 1	4.34 : 1	
	Average	0.47 : 1	3.54 : 1	
PHASE 2	2006	0.30 : 1	5.52 : 1	
	2007	0.67 : 1	3.08 : 1	
	2008	0.36 : 1	4.62 : 1	
	2009	0.24 : 1	11.07 : 1	
	2010	0.03 : 1	18.71 : 1	
	2011	0.10 : 1	33.49 : 1	
	Average	0.28 : 1	12.75 : 1	

- Economic Health Indicators**

Despite a decline in turnover in 2002 and 2003, the DL was able to increase its gross profit, profit before tax and its profit margins. While in the first phase the average profit margin was 11.02%, profit before tax was 45%, and gross profit was 48%, these figures increased on average by 30.32%, 628% and 352% respectively, using 2001 as base year. These figures provided evidence that the DL was a financially sound, growing business. The economic health indicators in Table 4 indicated that the solvency and liquidity status of the DL improved on a year to year basis as it relates to its debt situation as well as to its cash flow situation. As the DL did not carry an inventory the acid test ratio could not be calculated.

CONCLUSION AND RECOMMENDATIONS

The status of the economic capital of the DL was extensively analyzed for the period 2001 to 2011 as data for the first 5 years was not available. To complete the picture on the health status of the DL a perspective was provided on investment, allocation of funds and the health of the financial capital to provide an indication of the utilization of funds for productive purposes and how profits and savings have been used to create income for the business. The results revealed that the DL over time has adapted well and positioned itself to survive and grow financially. Its cash flow in each time period investigated increased to such an extent that it could take immediate business risks and exploit new business opportunities. It was also well positioned to pay current debt and has in the last time period under consideration 96.5 days available to deplete its cash reserves. In recent times it did not access any overdraft facilities or loans.

It can be concluded that the DL was in a reasonable position not only to fulfill its short-term obligations, but also its medium-term obligations. Although it was stated that technologies employed in a DL have a relative long lifespan, the researchers are still of the opinion and recommended that a larger proportion of surplus funds needs to be re-invested in the business for expansion purposes and replacement of technologies. Currently surplus funds are primarily channeled into investment portfolios such as property that do not relate to the core business of the DL.

While the DL had a healthy investment profile, questions can be raised on whether the business owner should access overdraft facilities as a mechanism to expand the business. An overdraft give a business greater financial freedom and flexibility, and it may also serve as an instrument to protect the cash security of a business. Given the fact that the DL is a family business and the possibility that one or more of the offsprings may take over the business in the next five to ten years with the probability of joint ownership, it may be advisable to increase the number of days of cash depletion to about 120 days and to venture into business expansion thereby creating a further platform for growth.

While the findings revealed that outstanding debt was well under control, the exponential increase in outstanding debts sent out signals that the business owner should develop an early warning system for risk management. This is particularly relevant at present because businesses are under severe stress due to the global economic crises of 2007 to 2011. The return on investments indicated that, since its inception the DL had been an asset creator and 80.72 cents was generated for every rand invested. This indicated that the business owner was highly efficient in the way the finances were managed and in the way acquisitions had been made. Investments had translated into cash very rapidly. A criticism against the DL is that given the ease with which cash was generated too little was invested in the expansion and modernization of the DL. This comment is borne out by the performance indicators that the DL showed a sustained positive turnover growth with liquidity and solvency throughout its lifespan.

REFERENCES

- Achtenhagen, L., Melin, L., & Naldi, L. (2010). Business Growth: Do Practitioners and Scholars Really Talk About the Same Thing? *Entrepreneurship Theory and Practice*, 34 (2): 289-316.
- Baron, R. A. & Shane, S. A. (2008). *Entrepreneurship: A Process Perspective*. Mason: LEAP Publishing.
- Bjerke, B. (2007). *Understanding Entrepreneurship*. Northampton: Edward Elgar Publishing Inc.
- Brockner, J., Higgins, E. T., & Low, M. B. (2004). Regulatory Focus Theory and the Entrepreneurial Process. *Journal of Business Venturing*, 19 (2): 203-220.

- Bygrave, W. D. (1989). The Entrepreneur Paradigm: A Philosophical Look at its Research Methodologies. *Entrepreneurship Theory and Practice*, 14 (1): 7-26.
- Coase, R. H. (1937). The Nature of the Firm. *Economia*, 4: 386-405.
- Deakins, D. & Whittam, G. (2000). Business Start-Up: Theory, Practice and Policy. In Carter, S. & Jones-Evans, D. (Eds.), *Enterprise and Small Business: Principles, Practice and Policy*, Upper Saddle River, NJ: Prentice-Hall.
- Du Toit, C. M. (1979). *Fundamentele Bedryfseconomie*. Durban: Butterworth.
- Fry, F. L., Stoner, C. R., & Hattwick, R. E. (1998). *Business: An Integrated Framework*. Boston: Irwin McGraw-Hill.
- Granlund, M. & Taipaleenmäki, J. (2005). Management Control and Controllership in New Economy Firms: A Life Cycle Perspective. *Management Accounting Research*, 16: 21-57.
- Groen, A. J. (2005). Knowledge Intensive Entrepreneurship in Networks: Towards a Multi-Level/Multi Dimensional Approach. *Journal of Enterprising Culture*, 13 (1): 69-88.
- Håkansson, H. (1989). *Corporate Technological Behaviour: Co-Operation and Networks*. London: Routledge.
- Håkansson, H. & Snehota, I. (1995). *Developing Relationships in Business Networks*. London: Routledge.
- Harber, S. & Reichel, A. (2007). The Cumulative Nature of the Entrepreneurial Process: The Contribution of Human Capital, Planning and Environment Resources to Small Venture Performance. *Journal of Business Venturing*, 22: 119-145.
- Highhouse, S., Thornbury, E. E., & Little, I. S. (2007). Social-Identity Functions of Attraction to Organisations. *Organisational Behaviour and Human Decision Processes*, 103: 134-146.
- Hoang, H. & Antoncic, B. (2003). Network Based Research in Entrepreneurship: A Critical Review. *Journal of Business Venturing*, 18 (2): 165-187.
- Hogg, M. A. (2007). Uncertainty-Identity Theory. *Advances in Experimental Social Psychology*, 39: 69-126.
- Korte, R. F. (2007). A Review of Social Identity Theory with Implications for Training and Development. *Journal of European Industrial Training*, 31 (3): 166-180.
- Kuratko, D. F. & Hodgetts, R. M. (2004). *Entrepreneurship: A Contemporary Approach*. Orlando: The Dryden Press.
- Lambrechts, I. J., Reynders, H. J. J., & Scheurkogel, A. E. (1979). *Die Investeringsbesluit*. Pretoria: Hollandsch Afrikaansche Uitgevers Maatschappij.
- Michael, S. C. (2007). Transaction Cost Entrepreneurship. *Journal of Business Venturing*, 22: 119-145.
- Miller, D. & Friesen, P. H. (1984). A Longitudinal Study of the Corporate Life Cycle. *Management Sciences*, 30: 1161-1183.
- Minniti, M. & Lévesque, M. (2008). Transaction Cost Entrepreneurship. *Journal of Business Venturing*, 22: 412-426.
- Overdraft. (2010). *Dictionary of accounting terms*. Retrieved September 13, 2010, from <http://www.allbusiness.com/glossaries/overdraft/4943597-1.html>
- Parsons, T. (1964). *The Social System*. New York: The Free Press.

- Parsons, T., Shils, E. A., & Tolman, E. C. (1951). *Towards a General Theory of Action*. Cambridge, Massachusetts: Harvard University Press.
- Quinn, R. & Cameron, K. (1983). Organisational Life Cycle and Shifting Criteria of Effectiveness: Some Preliminary Evidence. *Management Science*, 29: 33-41.
- Robbins, S. P. (1994). *Management*. New Jersey: Prentice-Hall, Inc.
- Taijfel, H. (1972). *Incorporation and (Re)Interpretation of Social Comparison Processes*. London: Cambridge University Press.
- Van Der Sijde, P. C. (2007). *Value Creation*. Unpublished article. Twente: University of Twente.
- Van Der Veen, M. & Wakkee, I. A. M. (2004). Understanding Entrepreneurship. In Watkins, D. S. (Ed.), *Annual Review of Progress in Entrepreneurship Research*, Brussels, European Foundation for Management Development: 114 - 152.
- Van Knippenberg, D. & Hogg, M. A. (2003). A Social Identity Model of Leadership Effectiveness in Organisations. *Research in Organisational Behavior*, 25: 243-295.
- Victor, B. & Boynton, A. C. (1998). *Invested Here: Maximizing your Organisation's Internal Growth and Profitability*. Boston, Mass: Harvard Business School Press.

INTERACTION AND BONDING AS SOCIAL CAPITAL INDICATORS IN A SMALL BUSINESS

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ABSTRACT

Social capital encompasses the quality and quantity of associational life. It is assumed that high levels of social capital result in improved business performance. For this reason the purpose of this research was to evaluate the status of social capital in a dental laboratory (DL) in South Africa using interaction and bonding (trustworthiness and reputation) as indicators. Based upon a cohort-survey research design using employees, customers and suppliers as research respondents, findings revealed that the social capital in the DL was in a healthy state despite an autocratic decision-making style based upon the principle of sole decision-making by the business owner.

INTRODUCTION AND THEORETICAL BACKGROUND

Entrepreneurship is by nature a social act within a specific type of social structure which creates value for a society or the market place. As such entrepreneurship is on the one hand an order-creating (creating a new equilibrium) act, and on the other hand an act that results in creating new contingencies. While the entrepreneur remains the main driver of the entrepreneurial process, careful consideration of the influence of interacting actors and institutions influences the entrepreneur in his decision on what the business ought to be (identity) or ought to do (acceptable value to produce). Hoang and Antoncic (2003) in this regard identified three critical elements, namely: the nature of the content that is exchanged between actors; governance mechanisms in relationships; and the network structure created by the cross-cutting relationships between actors to explain entrepreneurial outcomes. In essence, interaction between actors represents social capital in a business.

Social capital represents features of social organization such as networks, norms, bonding, trust, and reputation that encourage co-ordination and co-operation for mutual benefit. This encompasses the quality and quantity of associational life. The quality and quantity of associational life can be separated into the sources of social capital (primarily social networks) and its consequences. These can be either positive or negative depending on the circumstances. Social capital accumulates stock from which spawns certain benefits because of social network management. Network management represents the management of a set of social enhancement by raising the productivity of other resources, such as human and physical capital. The creation and accumulation of social capital requires the involvement of at least two people. The productive outcome of social capital formation is not only dependent solely on the intentions and actions of the entrepreneur, but also on the collective internalization of the externalities inherent in its formation. In other words, social capital should benefit all those who are part of the social capital formation structure (Chou, 2006).

In a social exchange, one individual typically provides a benefit (information, advice, resource access or other services) invoking an obligation in the receiving party to reciprocate, by providing some benefit in return (Ulhøi, 2005). The provider however, cannot be assured that the benefits will necessarily be reciprocated. Therefore, one can conclude that trust is the moderating variable that influences social exchange. The stronger the trust levels between the provider and the receiver, the stronger will be the bonding ties and the social capital built.

Groen, De Weerd-Nederhof, Kerssens-Van Drogelen, Badoux and Olthuis (2002) explained social capital as a community of people in which diverse members of employees are tied together and their ability to interact with others. Chewar, McCrikard and Carrol (2005) extended this viewpoint by viewing social capital as managing real and virtual elements of social identities in a business, including social rhythms for

interaction, membership, conventions, trust, productive outcomes, collective efficacy and the accomplishment of goals. Blanchard and Markus (2002) as quoted by Chewar, McCrikard and Carrol (2005, p. 262) defined social capital as feelings of membership, feelings of influence, integration and fulfillment of needs and shared emotional connections. It can be concluded that social capital formation is a function of bonding, interaction, management of identities and feelings inside and between business members. It is an asset available to individuals or collective actors as it provides an opportunity to access information and resources within a social network (Maurer & Ebers, 2006). Hu and Kronelliussen (1997) as quoted by Ulhøi (2005, p. 942) reported that high levels of social capital result in improved business performance. Research showed that bonding social capital impacts on the economic growth of a business by assisting in the accumulation of human capital. Findings revealed that social capital impacts on financial development through its effects on collective trust and social norms by participation in associational activities (Chou, 2006).

PROBLEM STATEMENT

To a large extent, workers in the DL had to adhere to self-prescribed rule-following behaviour instilled in employees over a period of 16 years. This rule-following behaviour has become fixated or ingrained in the employees' work practices derived from the group culture that established the following norms: work according to own schedule, but finish work on time, every time; take full responsibility for your position in the supply chain team; and produce products of high quality to the best of your ability. All business decisions were made solely by the business owner. This is an autocratic approach that has been the norm since the inception of the DL in 1996. The researchers were therefore interested in determining the perceived status of social capital in the DL in the presence of an autocratic leadership style of the business owner.

PURPOSE

The purpose of this research was to evaluate the status of social capital in a dental laboratory (DL) in South Africa using interaction and bonding (trustworthiness and reputation) as indicators.

RESEARCH DESIGN AND METHODS

Research Design

This was an idiographic research design focusing on a DL single research subject. The research environment was an oral dental research environment within the health sector of the Tshwane Metropolitan Region of South Africa. After careful evaluation of other dental laboratories in the Tshwane Metropolitan area, the DL was selected as business most suitable to justify the research project using a criterion-based benchmark approach based upon: state-of-the-art technology employed; spectrum of dental speciality services provided; the social capital relevant to the study; and the lifespan of the business that allows for longitudinal data collection.

The empirical part of the research was based upon a cohort-survey research design. Alasuutari, Bickman and Brannen (2009, p. 230) defined a cohort as an aggregate of individuals who experience the same events at the same time intervals. In this research longitudinal data was compiled from cohorts spanning a timeframe of 16 years stretching from 1996 to 2011. The researchers drew on the memory of research respondents to obtain longitudinal data. For this reason a fixed panel of respondents was selected with no additions to the sample or emigration from the samples permitted. The cohort thus remained stable during the execution of the research.

To eliminate historical effects due to differences in experiences and memories of respondents, the researchers opted for a standardized measuring instrument to minimize variance. This is in accordance with recommendations made by Creasey (2006) on how to minimize historical effects. To conduct a cohort-survey research Dixon, Bouman and Atkinson (1987) proposed the following procedure: select variables relevant to the concepts to be studied; devise a way of measuring those variables; develop a data recording device; and measure the same variables in the same way in the groups.

Population

The population was defined as all staff members employed, customers and suppliers of the DL over a period of 16 years. The staff members constituted 13 members with fewer than five years experience, 2 members with fewer than 10 years, and 4 staff members with fewer than 16 years in the DL. The customer base was presented by 69 customers with a relationship of fewer than five years, 8 customers with fewer than 10 years and 11 customers with fewer than 16 years with the DL. The supplier base was presented by 7 suppliers with a relationship of fewer than five years, 8 suppliers with fewer than 10 years and 2 suppliers with fewer than 16 years with the DL.

Sampling

The researchers employed a criterion-based sampling technique, a special kind of purposeful sampling. Babbie (2007) described purposeful sampling as an approach in which a researcher uses his/her own judgment about which respondents to choose depending on the purpose of the investigation. The biggest advantage of this approach is that the researcher is able to use his/her own research skills and prior knowledge of the research subject to select respondents (Babbie, Mouton, Vorster & Prozesky, 2006). For the purpose of this research the following criteria were chosen to select respondents:

- Respondents should have had a working business relationship with the business owner for at least one year and respondents would be classified into one of the following categories based on the length of the relationship: more than 10 years; 5 – 10 years; or more than 1 year, but fewer than 5 years;
- The respondents in the abovementioned categories were proportionally selected, by applying the stratified random sampling principles. The rationale behind this was that more weight was given to respondents that had a long working relationship with the owner;
- For suppliers and customers an additional criterion, namely, the monetary value of business with the laboratory was added. In the case of customers, only customers that contributed more than 2% to the total revenue of the DL, and grouped with others, more than 60% to the total revenue was included. The decision of 2% was decided upon due to the fact that the customer base was relatively broad and the contributing size of customers was of approximately the same order. In the case of suppliers the sample was loaded (88:17) proportionately to ensure greater equality and balance in perceptions of both the customers and suppliers;
- Staff members – Self-administered questionnaires were used to compile data on social capital. From a total of 19 staff members with an employment history of more than one year, 12 employees were selected to participate, whilst 7 were excluded. The 12 participating employees represented 63.16% of the workforce. The decision to load the weight of the employees to 63.16% of the workforce was firstly due to the small sample available and secondly, because these 12 employees had a very close relationship with the business owner and the daily operations of the laboratory; and
- Customers and suppliers – In this study the term customer represented all dentists, hospitals and dental laboratories that had a work relationship with the DL over the period of 16 years. The term supplier referred to all suppliers of materials, equipment, and services of any kind, over the period. Self-administered questionnaires were used for both customers and suppliers to determine the trustworthiness and reputation of the DL that has spelt success in a highly competitive DL laboratory market place.

Measuring Instruments

A structured self-administered questionnaire, entitled “Management of Social Capital Questionnaire” was designed to evaluate the management of social capital in the DL. Statements were formulated to evaluate two dimensions: employee’s interpretation of how the business owner would evaluate a particular statement in terms of his priority, and employee’s personal priority evaluation of a particular statement. Participants were instructed to rank all statements from most important to least important. The highest priority received the lowest numerical number i.e. one (1) while the lowest priority received the highest numerical number. The advantage of this construction type is that the researchers were able to determine to what extent the employees’ perceptions, *what they think is expected of them*, corresponded with what they *inherently believe* to be the right response. The researchers assumed that the closer to agreement between what is expected and what employees regarded as priority, the higher the social capital.

This self-administered questionnaire entitled “Bonding with Customers and Suppliers Questionnaire” was designed to evaluate the DL’s relationships with its customer and supplier base. Firstly bonding ties, indicative of social capital, will be evaluated. The two specific bonding ties to be evaluated will be trustworthiness and the reputation of the DL. Items were constructed using a five-point Likert Scale.

An evaluation of one (1) would be indicative of total disagreement on a statement while an evaluation of five (5) would be indicative of total agreement. Trustworthiness contained six (6) statements to measure business honesty, fulfillment of commitments, consistency in behaviour, business integrity, responsible conduct and reliability in business. Reputation comprised five (5) statements used to measure the business image, standing, contribution and role, as well as the quality of relationships with its customers and suppliers.

Hypothesis

In the quantitative paradigm the following hypothesis was tested:

H₁₀: There exists no association between the perceived social capital in the DL and the observed social capital reported by employees, customers and suppliers.

H_{1a}: There exists a significant association between the perceived social capital in the DL and the observed social capital reported by employees, customers and suppliers.

Data Analysis

Due to the small employee sample size (n=12) non-parametric data analysis methods were used. The relationship between the expected rank order and what the employees believed the rank order should be, was determined according to the Spearman Rank Order Correlation coefficient. Strong and significant relationships would be indicative of congruence in perceptions and thus contributing to social capital. This analysis does not provide an indication of how good or how bad the profile is.

Two types of bonding were analyzed namely trustworthiness and the reputation of the DL. Customers and suppliers were analyzed as one group representing the external business relationships of the DL. Due to data skewness to the negative tail, raw data was transformed into two categories which indicated the presence of high social capital in the DL. Therefore the bi-nominal test instead of the Chi square test was performed. The neutral value on the scale, that is the three (3) value on the scale, was transformed to the next lower score in the Likert scale.

The Spearman's Rho correlation represents a numerical index of the degree of relationship between two ordinal scale variables when each variable is expressed by rankings from highest to lowest score. The correlation may vary between -1 to 0 to +1. Spearman Rho correlation therefore assesses agreement between respondents' rank-orders on the variables. The Spearman Rho correlation was computed according to the following formula (Diekhoff, 1996; Aron & Aron, 1997; Fraenkel, Wallen & Sawein, 1999):

$$R_s = 1 - 6\sum D^2 / N(N^2 - 1)$$

where:

R_s = the Spearman rank-order correlation

D = difference between corresponding ranks on X and Y

N = the number of cases in the analysis

The binomial test represents the probability of an outcome of any particular response that is not influenced by the outcome of any other variable. To determine whether the observed probability differs significantly from the test probability, the following formula was used (Ott & Longnecker, 2004):

$$P(y) = n! / y!(n - y)! \times \pi^y (1 - \pi)^{n-y}$$

where:

n = number of trials

π = probability of success on a single trial

1 - π = probability of failure on a single trial

Y = number of successes in n trials

$$n! = n(n - 1)(n - 2) \dots (3)(2)(1)$$

FINDINGS

A total of 12 employees participated in the research. Of these 75% (n=9) were of the male gender while 25% (n=3) belonged to the female gender. The sample revealed that the employees working at the DL were middle-aged and older, as 66.7% (n=8) were between the ages of 46 and 71 years while 33.3% (n=4) were younger than 45 years. 41.6% (n=5) of the employees were in possession of a professional qualification, while 33.3% (n=4) had a secondary school qualification. The rest of the respondents, namely 25% (n=3) had a primary school education implying a semi-literacy level.

A total of 28 customers and suppliers participated in the research, of which 57.14% (n=16) were customers and 42.86% (n=12) were suppliers. Of the 16 customer participants 5 have had a business relationship with the DL of fewer than 5 years, 5 have had a business relationship of fewer than 10 years, while 6 have had a business relationship of fewer than 16 years. Of the customers 12 businesses were registered as private ownerships, 1 was registered as a partnership, 2 as companies while 1 was registered as a state-owned enterprise. The majority of customers receiving a service from the DL were dentists (n=15), while one hospital received dental technical services. Of the suppliers 5 had a business relationship of fewer than 5 years, 5 had a business relationship of fewer than 10 years, while 2 had a business relationship of fewer than 16 years. The supplier composition consisted of 2 private ownerships, 6 close corporations and 4 were registered companies. All the suppliers were suppliers of material and equipment.

In this section the researchers analyzed the correlation between what employees believed the DL considered being the priorities, and what the employees thought the priorities should be, to optimize social capital in the DL. Social capital was analyzed in terms of two concepts, namely bonding ties and interaction.

The data in Table 1 revealed that a high correlation existed between what the employees think the DL considered to be important to establish bonding ties in the business and what they themselves considered to be important. The correlations were positive ($r_s > 0$) implying that strong positive agreement existed between the rank order of statements. This implies that a high level of congruence existed between the employer's expectations and their own belief system. The highest level of congruence was to demonstrate respect for each other. Respect for the dignity of the other is followed by trust in each other.

It can therefore be concluded that the bonding ties component of social capital was high. H_0 should therefore be rejected in favor of H_a which stated that a high correlation exists between what the DL considered important to establish bonding ties and what employees themselves considered being important.

Table 1: Spearman's rho correlations for bonding ties

ITEM	CORRELATION	p-value	N
Employees should respect one another	0.695**	0.006	12
Employees should understand the business's aspirations	0.513*	0.044	12
Employees should feel they are valuable members of the business	0.549*	0.032	12
Employees should be able to trust one another	0.638*	0.013	12

The data in Table 2 reveal that a good relationship or association existed between what the employees think the DL considered being important for healthy interaction in the business and what they themselves considered to be important. This implies that a high level of congruence existed between expectations and their own belief system. The highest level of congruence implied that employees felt free to interact with customers and suppliers, and that employees should be kept informed. The only aspect that had a negative influence on the interaction component of social capital was the disagreement that existed because employees were unable to influence decisions on work outputs in the DL. This view was confirmed in the interview with the business owner who clearly stated that all decisions on work outputs and DL-related decisions are autonomously made by the business owner. The H_0 should therefore be partially rejected in favor of H_a which stated that there is a high correlation between what the DL considered to be important for meaningful interaction in the business and what employees considered to be important.

It can be concluded that a high level of social capital in the DL existed due to the high level of association that existed between the social capital priorities of the DL and the perceived priorities of employees. The only area of concern was the absence of influence by employees on decision-making regarding work outputs.

Table 2: Spearman's rho correlations for interaction

ITEM	CORRELATION	p-value	N
Employees should be kept informed	0.608*	0.018	12

Employees should feel free to interact with customers and suppliers	0.745**	0.003	12
Employees should feel free to influence decisions on work outputs	0.273	0.196	12

For customers and suppliers the two options under evaluation namely the respondents agree to some extent and the respondents totally agree were tested on an assumed probability proportion of 0.5 each. These evaluations tested only whether respondents differ significantly or whether they totally agree or agree to some extent on the “trustworthiness” and “reputation” statements of the DL. In the case of trustworthiness (Table 3), five of the six statements provided evidence for the acceptance of H_a namely that the DL was a totally trustworthy business.

Table 3: Binomial test on trustworthiness of Dental Laboratory

Social Capital: Trust-worthiness	Group	Category	N	Observed Prop.	Test Prop.	Asymp. Sig (2-tailed)	Average
I regard the Dental Laboratory as an honest business	Group 1	5.0000	22	0.79	0.50	0.004**	4.7857
	Group 2	4.0000	6	0.21			
	Total		28	1.00			
I can always rely on the Dental Laboratory to fulfill its commitments on time	Group 1	5.0000	19	0.68	0.50	0.087	4.6786
	Group 2	4.0000	9	0.32			
	Total		28	1.00			
The Dental Laboratory always behaves in a consistent manner	Group 1	5.0000	21	0.75	0.50	0.013*	4.7500
	Group 2	4.0000	7	0.25			
	Total		28	1.00			
The Dental Laboratory always conducts business with integrity	Group 1	5.0000	4	0.14	0.50	0.000**	4.8571
	Group 2	4.0000	24	0.86			
	Total		28	1.00			
The Dental Laboratory conducts business in a responsible manner	Group 1	5.0000	6	0.21	0.50	0.004**	4.7857
	Group 2	4.0000	22	0.79			
	Total		28	1.00			
The Dental Laboratory is a reliable organization to do business with	Group 1	5.0000	5	0.18	0.50	0.001**	4.8214
	Group 2	4.0000	23	0.82			
	Total		28	1.00			

The five statements were: DL is an honest business; PDL always behaves in a consistent manner; DL always conducts business with integrity; DL conducts business in a responsible manner; and DL is a reliable organization to do business with. The only statement on which respondents agreed to some extent was the statement: “DL always behaves in a consistent manner”.

In the case of reputation (Table 4) only two of the five statements provided evidence for the acceptance of H_a on the reputation of the DL as a business organization. These two statements were: The DL has a good name in the dental environment; and the DL maintains quality relationships with its customers and suppliers.

Table 4: Binomial test on the reputation of Dental Laboratory

Social Capital: Reputation	Group	Category	N	Observed Prop.	Test Prop.	Asymp. Sig (2-	Average
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						tailed)	
The Dental Laboratory has a good name in the dental environment	Group 1	5.0000	25	0.89	0.50	0.000**	4.8928
	Group 2	4.0000	3	0.11			
	Total		28	1.00			
The Dental Laboratory is one of the best dental laboratories in the business	Group 1	5.0000	13	0.46	0.50	0.851	4.5357
	Group 2	4.0000	15	0.54			
	Total		28	1.00			
The Dental Laboratory is a significant contributor to the dental profession	Group 1	5.0000	10	0.36	0.50	0.185	4.6428
	Group 2	4.0000	18	0.64			
	Total		28	1.00			
The Dental Laboratory plays an important role in my business success	Group 1	5.0000	14	0.50	0.50	1.000	4.5000
	Group 2	4.0000	14	0.50			
	Total		28	1.00			
The Dental Laboratory maintains quality relationships with its customers and suppliers	Group 1	5.0000	7	0.25	0.50	0.013*	4.7500
	Group 2	4.0000	21	0.75			
	Total		28	1.00			

The other three statements on which respondents agreed to some extent were: DL is one of the best laboratories in the business; DL is a significant contributor to the dental profession; and DL plays an important role in my business success. It can therefore be concluded that the bonding ties as a component of social capital with customers and suppliers were good. However, to obtain conclusive absolute agreement more needs to be done by the business owner of the DL to improve the positional standing of the DL in the industry in terms of its reputation.

CONCLUSION AND RECOMMENDATIONS

Blanchard and Markus (2002) as quoted by Chewar, McCrikard and Caroll (2005, p. 262), defined social capital as feelings of membership, feelings of influence and integration as well as fulfillment of needs and mutual emotional connection. Social capital represents features of a social organization such as networks, norms and trust that facilitate co-ordination and co-operation for mutual benefit and as such encompasses the quality and quantity of associational life (Chou, 2006). In this study the aspects in the definition are classified as bonding ties (trustworthiness and reputation) and interaction.

The research findings revealed that the social capital in the DL was in a healthy state. Bonding between employees in the DL was high and employees also felt free to interact with customers and suppliers. Employees also felt well informed. The only negative aspect experienced by employees was the fact that they had no influence over decisions regarding work output at the DL. This result was not surprising as the business owner had an autocratic decision-making style based upon the principle of sole decision-making. At this stage no change is recommended as the current positive business results do not provide any evidence to support a change in management style.

The business owner's relationships and networking with customers and suppliers of the DL have been evaluated as trustworthy. Business is conducted honestly, consistently, responsibly and reliably. It has also been rated as a business with high integrity. Although the reputation of the DL in the market place has been rated as good it is recommended that the business owner of the DL develop a strategy to enhance the

rating of the DL as one of the best dental laboratories, as a significant contributor to the dental profession and as an important role player in the business success of its customers and suppliers.

REFERENCES

- Alasuutari, P., Bickman, L., & Brannen, J. (2009). *The SAGE Handbook of Social Research Methods*. London: SAGE Publications.
- Aron, A. & Aron, E. N. (1997). *Statistics for the Behavioral and Social Sciences*. New York: Prentice Hall.
- Babbie, E. (2007). *The Practice of Social Research*. Crawfordville: RR Donnelley.
- Babbie, E., Mouton, J., Vorster, P., & Prozesky, B. (2006). *The Practice of social research*. Cape Town: Oxford University Press.
- Blanchard, A. L. & Markus, M. L. (2002). *Social Activity Indicators Interface Components for CSCW Systems*. New York: ACM Press.
- Chewar, C. M., McCrikard, D. S., & Carroll, J. M. (2005). Analyzing the Social Capital Value Chain in Community Network Interfaces. *Internet Research*, 15 (3): 262-280.
- Chou, Y. K. (2006). Three Simple Models of Social Capital and Economic Growth. *The Journal of Socio-Economics*, 35: 889-912.
- Creasey, G. L. (2006). *Research Methods in Lifespan Development*. Boston: Pearson.
- Diekhoff, G. M. (1996). *Basic Statistics for the Social and Behavioral Sciences*. New Jersey: Prentice Hall.
- Dixon, B. R., Bouman, G. D. & Atkinson, G. B. J. (1987). *A Handbook of Social Science Research: A Comprehensive and Practical Guide for Students*. New York: Oxford University Press.
- Fraenkel, J., Wallen, N., & Sawein, E.I. (1999). *Visual Statistics*. Boston: Allyn and Bacon.
- Groen, A. J., De Weerd-Nederhof, P. C., Kerssens-Van Drongelen, I. C., Badoux, R. A. J. & Olthuis, G. P. H. (2002). Creating and Justifying Research and Development Value: Scope, Scale, Skill and Social Networking of R&D. *Creativity and Innovation Management*, 11 (1): 2-15.
- Hoang, H. & Antoncic, B. (2003). Network Based Research in Entrepreneurship: A Critical Review. *Journal of Business Venturing*, 18 (2): 165-187.
- Hu, Y. & Korneliussen, T. (1997). The Effects of Personal Ties and Reciprocity on the Performance of Small Firms in Horizontal Strategic Alliances. *Scandinavian Journal of Management*, 13 (2): 159-173.
- Maurer, I. & Ebers, M. (2006). Dynamics of Social Capital and their Performance Implications: Lessons from Biotechnology Start-Ups. *Administrative Science Quarterly*, 52: 262-292.
- Ott, R. L. & Longnecker, M. T. (2004). *A First Course in Statistical Methods*. Belmont, Calif: Thomson Learning.
- Ulhøi, J. P. (2005). The Social Dimensions of Entrepreneurship. *Technovation*, 25: 939-946.

ORGANISING THE HUMAN RESOURCES FUNCTION TO HARNESS FUTURE OPPORTUNITIES: SURVEY RESULTS OF 2010 FORECASTED FOR 2020

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ABSTRACT

Some contemporary approaches for HR practitioners are identified in this paper in order to make use of human resources (HR) functions as a source of competitive advantage to add value to organisations. A survey was executed via an e-questionnaire using Survey Monkey in 2010 with forecasts for 2020 to obtain longitudinal results. Responses totalled 119 from members of the Human Resource Institute of New Zealand, representing 15.4%. The most important results are: HR should exhibit leadership in the functioning and organising of HR. Conclusions are that HR has a strategic function and practitioners are aware of how to increase HR effectiveness to add value to create future business opportunities.

INTRODUCTION

HR functions of contributing to the bottom line as well as becoming a strategic partner and change champion are only some of the pressures on the human resource (HR) profession in recent years (Ulrich et al 2012). Human resource management (HRM) has also been compelled to justify its existence and contributions by demonstrating how the function adds value and, consequently, the success of organisations in the globalised current business environment. It is also acknowledged that increased competition globally and regionally often serves as a catalyst for some organisations to adapt and then to profited from these changes (Bryson & Ryan 2012; Nel et al 2012).

This research paper is aimed at providing valuable insights into current HRM practices, particularly HR functioning and staffing related to issues in New Zealand. The main value stems from the longitudinal survey results that reveal the emerging trends and priorities of HRM due to the forecasts up to the year 2020, based on the 2010 survey. The overall results of the research results are of assistance to HR practitioners to enhance effectiveness and thereby add value to the bottom-line of organisations.

The paper reviews relevant literature and this is followed by the research focus and methodology. The findings of the 2010 survey and forecasts for 2020 are then discussed, followed by conclusions and recommendations.

LITERATURE REVIEW

The literature review takes cognizance of the work of various researchers, (Härtel & Fujimoto 2010; Nel et al. 2012; Strack et al., 2008; Ulrich et al. 2012., Wilson 2010) to identify HR functions. The value of their research could, for instance, provide indications for the future regarding New Zealand HR managers' organising of the HR function and staffing to be effective, add value, and harness future opportunities for organisations.

The general functions of HR managers are not dissimilar in most market driven economies around the world (Pretorius 2010; Rudman 2010). The communication of HR's strategic vision for the future is a critical contemporary HR function. Furthermore, the functions of HR managers in particular are

interdependent with those of line management regarding activities such as strategy formulation. Attempts to either practise only HR or line management would result in organisations being in danger of becoming dysfunctional. HR personnel, particularly HR managers, should therefore utilise their expertise to benefit organisations and enable it to remain competitive in the current and future business world. Snell & Bohlander (2013) state that “Successful organizations combine the experience of line managers with the expertise of HR managers to develop and utilize the talents of employees to their greatest potential” (p.30). Ignoring the particular relationships between various HR and business functions can, therefore, result in serious negative consequences for an organisation.

HR practitioners in New Zealand (NZ) have been exposed to increasing global competition pressures on the organisations they work for. These include: globalisation; developments in technology and telecommunications; the shift towards a knowledge-based workforce; changed employment legislation; and intensifying competition for skilled labour. The HR function, therefore, needs to go beyond the delivery of cost effective administrative services and provide expertise on how to leverage human capital and be strategic in the execution of the functions they provide to the organisation. HR also needs to demonstrate the financial impact of HR activities on the organisation. The role of HR practitioners as strategic business partners and leaders of change has also received considerable attention globally by various researchers (du Plessis, Beaver & Nel, 2006; Strack et al 2008; Ulrich et al 2012; Wilson 2010). HR practitioners must also expect to meet the raft of new challenges posed by the continuing evolution of their role and function. According to Ulrich and Brockbank (2005:134), HR should, therefore, not be defined by ‘what it does’ but by ‘it’s contribution to achieve organisational excellence’. In the post Global Financial Crisis (GFC) environment, businesses in all parts of the world are facing more challenges than ever before to stay in business. These challenges require diligent HR and general management.

HR practitioners are compelled to play an increasingly vital role in maximising the efficiency of an organisation’s human resources, because HR practices support the employee behaviour that is critical for accomplishing key organisational processes and adding to the bottom line (Bryson and Ryan, 2012; Hawkins 2010; McDonnell, Stanton and Burgess, 2011). It is evident that individual HR practitioners must execute appropriate HR functions and be equipped with distinct competencies that enable them to execute the functions that would support organisations appropriately to achieve their objectives to remain competitive (Rasmussen, Haworth, and Andersen 2010).

METHODOLOGY

Background to the Collection of the Empirical Data

The main research question is: To what extent have human resources functions in organisations as well as staffing changed to add value to the bottom line between 2010 and forecast for 2020 in New Zealand, and to what extent are these changes significant for the practice of HRM?

A very comprehensive questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand (NZ) and Australia in 1994. The questionnaire was used in a survey to identify the possible future competencies and roles of HRM in those countries for the year 2000 and was used by the then Institute of Personnel Management, now known as the Human Resource Institute of New Zealand (IPMNZ 1994). The results of that study formed the basis for subsequent research study in 2001 with forecasts for 2010 in NZ (Burchell, 2001; Burchell, 2002). Minor modifications involved updating and reducing the questionnaire, which at that time was paper based, and refining the questions for clarity. The final section of the said questionnaire sought to obtain demographic information from respondents. The 2001 survey covered all registered HRINZ members and the response rate was 10%.

Study Covering HR Practice in New Zealand in 2010 and Forecasted for 2020

The NZ study of 2001 was again used with minor modifications in 2010 to obtain responses from NZ HR practitioners. For the 2010 repeat study, the questionnaire was shortened, although some sections were expanded to include contemporary aspects such as social media in the HRIS section. The reporting format was also changed to an e-survey using Survey Monkey. A 5-point Likert scale was also used which ranged from 1 = “unimportant” to 5 = “critical to success”. The target population was again limited to HRINZ

members, and to those who had registered to participate in HR research requests. The HRINZ provided links to the total number of HRINZ members in this category which totalled 635. A total of 119 members responded but only 98 questionnaires were fully completed and usable, resulting in a 15.4% response rate. As pointed out earlier in the methodology, the 2010 survey participants obtained from the HRINZ database only included members who were registered and who had requested to participate in HR research from HRINZ. The overall positive implication is perhaps a higher quality and more focused response from participants in 2010.

The results of the e-survey were subject to verification first and a SPSS analysis was undertaken. Parametric and non-parametric tests were applied using the Wilcoxon Signed Ranks Test as well. Significance testing at the $p < 0.01$ level was undertaken and the results were recorded. This approach enhances the 2010 comparisons with the 2020 forecasts for analysis purposes, and identifies significant differences between the two sets of data as well. It must be noted that due to the magnitude of the research projects and their longitudinal nature, only the 2010 study with forecasts for 2010 are addressed in this paper. As a further narrowing down to analyse the results, only those results focusing on HR organisation and staffing are reported on. Consequently only a very small section of the overall survey is reported on and presented in this paper.

DEMOGRAPHIC PROFILE OF RESPONDENTS

In this section the various demographic responses are presented. These include the profession, gender, organisation size and industry sector.

Profession Representativeness

The response is a representative sample of the HRINZ members who participated in sharing the research data, and this provides confidence in the responses which were provided. In the current study in NZ (2010), the most frequent title was HR Manager (46.7%), and the next most common title was HR non-management (16.7%). Those two titles accounted for 63.4% of the reported titles.

Organisation Size

It should be noted that NZ is predominantly a country of small businesses, with 93.3% of enterprises employing 19 or fewer people (Ministry of Economic Development, 2006). The study results consisted of participants from different sized organisations, For the purposes of analysis, however, small organisations were grouped as organisations with less than a 100 employees (0-99 with a result of 25%); medium organisations consisted of 100 to 499 (with a result of 28.3%); employees, large organizations consisted of 500 or more employees.(with a result of 46.7 %).

Industry Sector

Table 1 outlines the types of organisations and the size of the respondents' organisation for the various industry sectors which are represented in the survey. This result is also a representative sample of NZ Industry which provides confidence in the survey responses.

FINDINGS

This paper highlights the results of the 2010 survey together with the respondents' forecasts for 2020. A discussion and comparison of aspects of each category for 2010 as well as forecasts for 2020 is undertaken.

The rationale for the research was, via the interpretation of the data to identify those characteristics of the HR function that would make it effective in providing HR practitioners with the necessary knowledge to enable management's efforts to become or remain competitive in the business environment. The research is executed within the context of a longitudinal study to identify trends for management practice.

As previously outlined, the findings and discussions are only focused on the HR organisation and staffing that adds value to the bottom line, representing data from section 4 of the 2010 survey only. Section

4 of the HR survey comprised 18 questions and only those which returned predetermined high results are reported on.

Table 1: Profile of the respondents by industry sector 2010

Sector	NZ profile 2010
Agriculture, hunting, forestry and fishing	4.3%
Mining and quarrying	1.5%
Manufacturing	6.9%
Electricity, gas and water	8.3%
Wholesale and retail trade, restaurants and hotels	6.2%
Transport, storage and communication	4.1%
Business, insurance and financial services	12.5%
Community, social and personal service	11.1%
Education	20.8%
Other	24.3%
TOTAL	100%

Respondents were required to apply the 5-point Likert Scale ranging from 1 being “unimportant” to 5 being “critical to success” for both 2010 and 2020 to provide their responses. This analysis, however, only focuses on the last 2 combined responses of respondents, namely, “Very Important” and “Critical to Success”. Furthermore only the results of the 18 Questions which attracted a combined response of more than 50% are discussed. Lastly, as a further refinement, parametric and non-parametric tests were applied, in particular the Wilcoxon Signed Ranks Test to obtain a focussed picture of the results. The results which attracted a response of more than 50% are shown in Table 2 and are listed from the highest response to the lowest. Results below 50 % are not listed or analysed, although their possible applicable to the functions of HR are noted.

Table 2: Paired responses by question for 2010 and 2020 above 50%

No.	Question detail	Position of re-sponse	Response by year
14	Exhibits leadership for the functioning and organisation of HR	1 3*	2010 – 1.3% 2020 – 0.0%
13	Focuses on the quality of HR services	2 2	2010 – 2.6% 2020 – 0.0%
11	Anticipates the effect of internal and external changes on the organisation	3 1	2010 – 0.0% 2020 – 0.0%
9	Educates and influences line managers on HR issues	4 4	2010 – 1.3% 2020 – 0.0%
10	Defines and communicates HR vision of the future	5 5	2010 – 1.3% 2020 – 1.3%

***It must be noted that the result of the 2020 forecast is also listed in rank order from highest to lowest**

In Table 3, responses are ranked for 2020 which were not part of the 50% plus threshold for both 2010 and 2020 questions, but singularly above the threshold. Results are again listed from Highest to Lowest. From the responses it is clear that the perception of respondents regarding 2020 has shifted measurably as to what is regarded as “Very Important” and “Critical to Success” since 2010. These results are noteworthy and need to be explored in more detail. It must furthermore be noted that all other responses which did not attract a response above 50% for either 2010 or 2020 are not addressed for the rest of the analysis in this paper. No further discussion is undertaken of these issues as they are either unimportant or of no concern, as they are not on the radar screen in organisations in NZ as far as the respondents are concerned in their efforts to become or remain competitive. The questions which are not further discussed are the following:

Table 3 Single results by question for 2020 which attracted more than a 50% response in descending order

Q No.	Question detail	Response by year
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12	Demonstrates the financial impact of all HR activities	2020 – 79.5%
16	Managing knowledge and intellectual capital	2020 – 65.0%
5	Broad knowledge of most HR Functions	2020 - 62.8 %
2	Knowledge and use of HR information systems	2020 – 61.5%
18	Knowledge of the impact of globalisation on HR practices	2020 – 56.4%
17	Knowledge of e-Commerce and HR implications thereof	2020 – 53.8%

A further refinement of the results are presented in Table 4 where the questions for either 2010 or/and 2020 which attracted more than 50% responses are listed after further statistical analysis. It is indicated in Table 4 under the heading “Question and year” in terms of the applicable categories and in brackets reflecting the year.

Table 4: Paired comparisons and significance of results

Paired Q number	Question and year	Mean 2010	Mean 2020	Significance
2	Knowledge and use of HR information systems (only 2020 above threshold)	2.88	3.70	.000* /.000**
5	Broad knowledge of most HR functions (only 2020 above threshold)	3.37	3.77	.000* /.000**
9	Educates and influences line managers on HR issues. (2010 & 2020 above threshold)	3.67	4.20	.000* /.000**
10	Defines and communicates HR vision of the future. (2010 & 2020 above threshold)	3.55	4.07	.000* /.000**
11	Anticipates the effect of internal and external changes on the organisation. (2010 & 2020 above threshold)	3.75	4.45	.000* /.000**
12	Demonstrates the financial impact of all HR activities. (2020 above threshold).	3.30	4.15	.000* /.000**
13	Focuses on the quality of HR services. (2010 & 2020 above threshold)	3.52	4.05	.000* /.000**
14	Exhibits leadership for the functioning and organisation of HR. (2010 & 2020 above threshold)	3.78	4.07	.000* /.001**
16	Managing knowledge and intellectual capital (only 2020 above threshold).	3.22	3.82	.000* /.000**
17	Knowledge of e-Commerce and HR implications thereof (only 2020 above threshold)	2.60	3.53	.000* /.000**
18	Knowledge of the impact of globalisation on HR practices(only 2020 above threshold)	2.65	3.63	.000* /.000**

*p<0.01 (Note: Scale used was: 1-Unimportant, 5- Critical to success)

** Wilcoxon Signed Ranks Test

In the next section the results are analysed, bearing in mind the significance of each as shown in Table 4 as well as the literature survey which was undertaken to determine the context of the results. The analysis is initiated for both 2010 and 2020 results of the same question above the threshold of 50% and proceeds from highest to lowest. The discussion of the 2020 only results which were above the threshold and were significant as well, as shown in Table 4, are analysed and discussed.

ANALYSIS OF THE RESULTS

The results are discussed from highest to lowest while observing the statistical significance for the relevant questions for both 2010 and 2020 as being shown in Table 2 and significance shown in Table 4.

Question 14: Exhibits Leadership for the Functioning and Organisation of HR

For 2010 this was the highest response (66.3%), but it slipped to 3rd position (81.6%) in the 2020 response. It can be deduced that the need for leadership capabilities with regard to HR’s functioning and organising has

exceeded the previous importance measurably, but must be viewed in the context of the 2020 results. The result is also identified as being significant. The reasons for the increase of this question is perhaps that current and future HR practitioners in New Zealand need to focus more on their abilities, skills and attributes to become outstanding leaders. It is also increasingly vital for the HR practitioners in New Zealand to exhibit leadership skills within the organisation, as was pointed out in the literature review (Ulrich et al. 2012; Rudman, 2010).

It is noteworthy that Q 11 - "Anticipates the effect of internal and external changes on the organisation" (86.4%) became a top priority and Q13 - "Focuses on the quality of HR services" (83.3%) was a second priority for 2020. These were preferred above leadership of the function, as was shown in the 2020 priority list. This result may perhaps be ascribed to the notion that by 2020 the leadership function of HR will have been consolidated and accepted by line management and those new issues such as effect of change and quality of service may then take centre stage.

Question 13: Focuses on the Quality of HR Services

For 2010 this was the second highest response (60.3%) and maintained the same position for the 2020 response (83.3%). This could perhaps be explained in the context of comments made by Macky & Johnson (2007) who state that only half of New Zealand organizations report assessing what they do and much of this is likely to be informal, ad hoc and piecemeal. Marchington and Wilkinson (2012) also state that HR specialists are often critical of their actual contribution to HR goals and the quality of the service being provided. The reasons for this could be that firstly, HR often finds itself in an ambiguous position, and its presence is being questioned on cost grounds, and secondly, that the contribution of HR is hard to quantify as practitioners work closely with line managers and depend on them to put policies into effect. Also, while it may be possible to identify the impact of HR decisions, one cannot always be sure that the HR specialists contributed to them. (Snell & Bohlander, 2013). The concerns identified in the literature may perhaps be the reasons for the heightened focus on service as second priority by the respondents for both 2010 and 2020.

Question 11: Anticipates the Effect of Internal and External Changes on the Organisation

For 2010 this was the third highest response, (57.7 %) albeit being on par with Q 9 regarding "education and influence on line managers on HR issues". It gained first position (86.4%) in the 2020 response. It is clear that respondents ascribe high importance to internal and external changes in the years to come, which is in line with the literature survey (Strack et al 2008; Ulrich et al 2012; Wilson 2010). Change is expected to become a way of life as New Zealand business organizations strive to keep pace in an increasingly competitive world market place, according to Bryson and Ryan (2012). Respondents certainly regard the nature and impact of change on organisations and the HR function and staffing as critically important for the next decade in NZ. It may also be that the fallout from the GFC is still fresh in terms of the changes that had to be made to survive in the minds of the respondents. The results were also supported by being significant at $p < 0.01$ and being 0.000 level as well, as was shown in Table 4.

Question 9: Educates and Influences Line Managers on HR Issues

For 2010 this was the fourth highest response (57.7%) although it was on par with Q 11 regarding change. It did maintain the same position for the 2020 response (being 80.7 %). Educating and influencing line managers regarding HR issues thus saw a significant increase for 2020 which was significant at $p < 0.01$ and 0.000 level as well, as was shown in Table 4.

This result could perhaps be justified by various researchers stating that line departments are those that are directly involved in activities that are central to the organisation. Furthermore, as the traditional work of HR managers diminishes, line managers are stepping up and performing some duties that are typically done by human resource professionals, ably assisted in the process by modern automation (Erasmus et al 2013). Furthermore Macky (2008) claims that in New Zealand, the majority of the businesses are small and as such, HR issues are dealt with by line managers who play a critical role in HRD efforts. They act as a link with employees and support the successful implementation of systems and processes in their management areas in the organisation. Line managers therefore need education assistance in identifying areas of need to managing HR interventions. Such education could of course also be executed by HR

consultants where organisations do not employ HR personnel or managers. It is clear from the results that education is viewed as becoming increasingly important as part of the function of HR and for staffing the organisation to add value to the bottom-line.

Question 10: Defines and Communicates HR Vision of the Future

For 2010 this was the fifth highest response (52.5%) and maintained the same position for the 2020 response (74.3%). whilst significant at $p < 0.01$, and at the 0.000 level. This could perhaps be ascribed to views such as Marchington and Wilkinson's (2012), that "strategy is about winning." An organisation's chosen strategic vision has clear implications for HR policy and practice, as well as for the workforce, and it should be clearly communicated to all relevant stakeholders in the organisation.

According to Bratton and Gold (2012), the organisation's commitment to its HR processes forms a part of its evolving value system and lies at the heart of the organisational framework, which should be communicated to all stake holders. The HR vision is also a determinant of the principles on which management decisions are based, and it should be embedded in corporate culture as well (Nel et al. 2009). HR practitioners thus act as a middle person for communication between employee and management.

Discussion of Singular Questions which Attracted Responses above 50% only in 2020

The discussion is based on the results shown in Table 4 and are summarised below. It must be noted that all results are significant at $p < 0.01$ and are at the 0.000 level as well for the Wilcoxon Signed Ranks Test. New opportunities or realities for 2020 which were not high on the HR agenda in 2010 (below the 50% threshold) have now come to the forefront. These are addressed below and possible reasons for these results are suggested.

Question 12: "Demonstrates the financial impact of all HR activities" (79.5%). The result is the most important and is perhaps due to the close proximity of the GFC global effect when the respondents completed the survey. Their perception of the future is therefore acute regarding the consequences and effects of financial issues on HR activities and businesses.

Question 16: "Managing knowledge and intellectual capital" (65.4%). It has been a key feature of the modern world that the knowledge revolution has become exponential. It is therefore not surprising that respondents regard the management of knowledge and intellectual capital (also known as human capital) as a primary HR source to manage in future (Erasmus et.al 2013). The respondents anticipate it to be far more important by the end of this decade than the current value ascribed to it. Many researchers have focused on the knowledge wave and the intellectual capital of human resources as a major competitive advantage for organisations in future, and this includes appropriate talent management (Snell & Bohlander, 2013).

Question 5: "Broad knowledge of most HR functions" (62.8%). It is often the case in organisations that HR practitioners are accused of being over specialised or not knowledgeable enough about the business. This result can perhaps be viewed in the New Zealand context and ascribed to the characteristic of being mainly small sized enterprises, according to the Ministry of Economic Development (2006). Many organisations avoid employing full time high level HR practitioners due to their small size. HR clerks or officers often have to shoulder the burden of the work and it is implied that they should have a broad knowledge of HR functions (Nel et al, 2012). This situation is regarded as becoming more acute for the future and has therefore increased in the estimation of the respondents for the 2020 forecast.

Question 2: "Knowledge and use of HR information systems" (61.5%). The evolutionary process of the electronic age has increased exponentially since the start of the new millennium. A simultaneous development is the knowledge about and the use of human resource information systems (HRIS) in organisations at all levels on a global scale (Snell and Bohlander, 2013). Organisations are increasingly aware of the issue that "information is power" and that it provides a competitive edge which is critical for survival and being successful in the future. It also creates opportunities for the future. It is therefore not surprising that respondents have highlighted their opinion of the future in terms of the ever increasing importance of HRIS to HR practitioners in particular and the need to be knowledgeable about them.

Question 18: “Knowledge of the impact of globalisation on HR practices” (56.4%). Although New Zealand is a small country and at the bottom of the world, it does not escape the globalisation of businesses, and this will only escalate during the next century. Multi-national companies (MNC) also operate in and from New Zealand, one of the most noteworthy being a home-grown MNC, namely Fonterra. The role of HR practitioners is critical to operate as an innovator and integrator and to be a strategic positioner in order to cope with the global impact on organisations (Ulrich et al. 2012). In 2020 this facet of HR organising and staffing is regarded as critical to accommodate the ever increasing globalisation of businesses and to develop contemporary approaches to harness future opportunities.

Question 17: “Knowledge of e-Commerce and HR implications thereof” (53.8%). Developments such as the internet and e-commerce has revolutionised business globally and are an inescapable reality. More and more organisations are therefore conducting their business on-line and also have to adapt to the ever increasing competitive demands of this channel of doing business (Bryson & Ryan, 2012). It is not surprising that it has raised awareness and has become a priority above the 50% threshold as well. This will increase in importance in future and HR need to provide the appropriate service to management to cope with this contemporary demand (Erasmus et.al. 2013).

An overall deduction regarding the results of the 2020 singular questions only, as identified by the respondents, is as follows: It is abundantly clear that issues relating to the electronic era and use thereof are of paramount importance to the organising and staffing of the HR function to provide optimal service to organisations. Equally important is the issue of knowledge management and the use of intellectual capital by organisations, since this would enhance being competitive and enable the harnessing of opportunities for organisations in the next century.

CONCLUSIONS AND RECOMMENDATIONS

In the research that was executed in 2010 and forecasted for 2020 a comparison of the highest and lowest results above the 50% threshold revealed significant changes in some HR functions and staffing.

The most significant result is the leadership function of the HR practitioner, to take cognizance of the effect of change by the aligning of HR strategies with business strategies in order to organize the HR function better both internally and externally. A new kind of HR practitioner can be expected to organize the HR function in future successful organisations in order to add value to the bottom line for the 21st century.

Concrete recommendations are that the organisation of the functions of HR practitioners needs to be intensively reassessed to cope with future demands on them. Furthermore, organisations need to link human resources goals to business strategy, attract and retain highly skilled staff, and enhance productivity, quality and customer satisfaction to serve organisations effectively and to harness future business opportunities.

It is acknowledged that it is perhaps a limitation of the study that it was executed in 2010 while New Zealand was still in the grips of the economic downturn due to the global financial crisis. Respondents' responses could perhaps have been more conservative for 2010 as well as their forecasts for 2020, which may have an impact on the overall results.

It is concluded that although HR may be a key management role, the answer to achieving this lies to an extent in each individual human resource managers' functions. HR practitioners should be a strategic business partner, advisor and assistant to the front line manager as well as a people manager, which in turn is influenced by the organization's perception of the nature and scope of HR staffing. This is particularly important, as the organisation and staffing of the HR function continues to shift from that of a functional expert to that of a business partner to harness future opportunities for an organisation. Lastly business organisations clearly need to take note of the impact of, for example, financial decisions on the HR function which in turn would impact on the leadership of HR regarding the overall competitiveness of an organisation for the next century in the aftermath of the global financial crisis.

REFERENCES

Bratton, J. & Gold, J. (2012). *Human Resource Management theory & practice*. (5th ed.). UK: Palgrave Macmillan.

- Bryson, J. & Ryan, R. (2012). *Human Resource Management in the Workplace*. Australia: Pearson.
- Buller, P.F. & McEvoy, G.M. (2012). 'Strategy, human resource management and performance: Sharpening line of sight' *Human Resource Management Review*, 22, 43-56. doi:10.1016/j.hrmr.2011.11.002508. doi:10.1108/00483480910978018
- Burchell, N. (2001). 2000 to 2010. 'Future directions for HR in New Zealand', *Presentation to the annual conference of the Human Resources Institute of New Zealand*, Wellington, HRINZ, New Zealand, September.
- Burchell, N. (2002). '1994 to 2010 Future directions for HR in New Zealand', Unitec, New Zealand, viewed 10 November 2011, http://www/hrinz.org.nz/info/hot_stuff/conference/noel_burchell.asp .
- Du Plessis, A.J., Beaver, B. & Nel, P.S. (2006). Closing the gap between current capabilities and future requirements in human resource management in New Zealand: Some empirical evidence. *Journal of Global Business and Technology*, 2(1): 33-47.
- Erasmus, B.J., Loedolff, P. van Z, Mda, M. & Nel, P.S. (2013). *Managing Training and Development*. (6th Edn) Oxford University Press: Cape Town.
- Härtel, C.E.J. & Fujimoto, Y. (2010). *Human resource management: Transforming theory into innovative practice*. Australia: Pearson Education.
- Hawkins, R. (2010). What the future holds for New Zealand organisations from a human resource perspective. *Interdisciplinary Journal of Contemporary Research in Business*, 2(8), 10-22.
- Houkamau, C. & Boxall, P. (2011). The incidence and impacts of diversity management: A survey of New Zealand employees. *Asia Pacific Journal of Human Resources*, 49(4), 440-460. doi: 10.1177/10384111111422314.
- Institute of Personnel Management New Zealand (IPMNZ). (1994). *Human resources priorities for competitive advantage 1994-2000, The IPM survey report*. Institute of Personnel Management New Zealand, Auckland, New Zealand.
- Marchington, M. & Wilkinson, A. (2012). *Human Resource Management at work*. (5th ed.). London: The Chartered Institute of Personnel and Development.
- Macky, K. & Johnson, G. (2007). *Managing Human Resources in New Zealand*. (2nd ed.). New Zealand: McGraw-Hill Book Company.
- Macky, K. (2008). *Managing Human Resources, Contemporary perspectives in New Zealand*. Australia: McGraw-Hill.
- Mondy, R.W. (2012). *Human Resource Management*. (12th ed.). England: Pearson Education Ltd.
- Nel, P. S., Werner, A., Du Plessis, A.J., Fazey, M., Erwee, R., Pilay, S., Hearn Mackinnon, B., Millett, B., & Wordsworth, R. (2012). *Human resource management in Australia and New Zealand*. Australia: Oxford University Press Melbourne.
- Nel, P. S., Du Plessis, A.J., & San Diego, J. (2011). 'Management implications for managers and HR practitioners: some longitudinal research findings in New Zealand', *Asia Pacific Journal of Business and Management*, 2(2), 60 – 73.
- Nel, L., Nel, P.S. & Du Plessis, A.J. (2009) *Ethics and Organisational Culture*. Integrating ethics into organizations. Germany: Lambert Academic Publishing.
- Ministry of Economic Development, (2006). *SMEs in New Zealand: Structure and Dynamics 2006*, Viewed 10 September 2011, <http://www.med.govt.nz/>

- Pretorius, O. (2010). No HR people allowed. *People Dynamics*, 6–7, January.
- Rudman, R. (2010). *Human resources management in New Zealand* (4th Ed.). New Zealand: Prentice Hall.
- Rasmussen, E., Haworth, N., & Andersen, T. (2010). Has the strategic role and professional status of human resource management peaked in New Zealand? *Journal of Industrial Relations*, 52(1), 103-118.
- Snell, S. & Bohlander, G. (2013). *Managing Human Resources*. (16th ed.) South-Western, Australia, Cengage Learning.
- Stroker, J., & Hallam, G. (2009). The right person, in the right job, with the right skills, at the right time: A workforce planning model that goes beyond matrix", *Library Management*, 39(8), 561-571.
- Strack, R., Dyer, A., Caye, J. M., Minto, A., Leicht, M., Francouer, F., Ang, D., Bohm, H., & McDonnell, M. (2008). *Creating People Advantage. How to address HR challenges worldwide through to 2015*. The Boston Consulting Group. World Federation of Institute of Personnel Management Associations.
- Ulrich, D. & Brockbank, W. (2005). *The HR value proposition*. USA: Harvard Business School Press.
- Ulrich, D., Younger, J., Brockbank, W., & Ulrich, M. (2012). *HR from the outside in*. New York, McGraw-Hill.
- Wilson, P. (2010). *People@work/2020: Challenges and issues for Australian HR practitioners*, Australian Human Resources Institute, Australia.

REGENERATION STRATEGY OF JAPANESE-STYLE BRAND

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ABSTRACT

This paper focuses on the issue whether the Japanese-style brand strategy will decline or can seek the way of regeneration under the recent global competition. Describing the past and present situation of Japanese-style brand strategy, it is argued that the Japanese-style brand strategy can be seen as an outside-in path comparing to the Euro-American's inside-out path. Based on the review of four elements of brand, an exploratory study of brand image has been conducted. Authors discuss on the possible development of Japanese-style brand for connecting "past" and "present" brand strategies and groping for the hybrid brand identity through two paths. It will also suggest a strategy for Japanese brands in the global competition.

INTRODUCTION

There have been many reasons to regard the Japanese-style brand strategy as a different model from the Euro-American one. However, the Japanese-style brand strategy is confronting with many problems now and is becoming more and more complicated. Many Japanese leading companies have realized the importance of their brands last ten years. For competing in the global hyper competitive circumstances, Japanese companies have developed their brand strategies. This paper describes several issues on the future of the Japanese-style brand strategy based on the brief review of the past and present condition of the brand strategy in Japan. The scenario for the regeneration of Japanese-style brand strategy is discussed based on the brand image research.

PAST AND PRESENT OF JAPANESE-STYLE BRAND STRATEGY

In Japanese-style brand strategy, it is adequate only to manage individual brands separately. Much of the attention has been paid to the reliability and image of the company with its brands. Consequently, the "double brand" has frequently been used, where a corporate brand name and a product brand name are integrated.

While the product management has been carried out continuously, there has been an absence of the product design based on the style and claim of the brand. In other words, little has been done to clarify or differentiate brand concepts. A product name is rarely advertised or promoted separated from a corporate name, even in the case of new products. It seems that the improvement of the reliability and/or image of corporation is substantially important for Japanese company. This is very contrastive to the Euro-American-style brand strategy, which is very product-oriented.

Several factors can be mentioned for explaining the background of the corporate brand-oriented brand strategy in Japan (Ogawa, 1994a, Kido 1994, and Tanaka 1996). They are (1) cultural factors, (2) corporate behavior factors, and (3) consumer behavior factors.

The Japanese-style marketing has been formulated under the background of Japanese-style consumers, companies, distribution channels and transactions. Japanese consumers are lack of judging ability, though they have homogenous needs and cultural backgrounds with high context. That is called "immature but highly interesting consumers" (Ikeo, 1999). It brings that Japanese consumers tend to avoid risk and use corporate brand as an umbrella brand in order to reduce uneasiness in their purchases.

The Japanese style of distribution channels and transactions can also be emphasized. The small scale and large number of retailers, the many steps of wholesaling as well as the complicated and many transaction steps are often mentioned as features of the Japanese-style distribution system. It is noticeable that, in such distribution system, manufacturers have oriented to the distribution system, where the building and maintenance of business relationships have been regarded as most important. As Takashima (2000) noted, the enrichment of product lines and the frequent development of homogeneous new products have been supported by the advertising, which has been emphasizing the corporate image emotionally rather than technological differences of individual products. It has brought to enhance the reliability of the corporation and its product lines. Such a situation is also connected with the appreciation of the corporate brand.

The understanding of Japanese-style brand strategy has also been confronted with "counterevidence". For instance, there are many cases where corporate names are used in Europe and America such as Mercedes-Benz, BMW, Xerox, IBM, Coca-Cola (Katahira, 1994). It is also a question whether any corporate brand strategy has been existed in Japan (Suyama and Umemoto, 2000).

"TWO PATHS" OF BRAND EVOLUTION

The brand evolution is considered to take two different paths. The first path is called the "outside-in path" which reorganizes and integrates brand systems correspondingly to the corporate environments. The identity of product brands is verified through the total management of the corporation or corporate group. Furthermore, the identity has been fused into a hyper-corporate brand through strategic alliances and M&A in the global scale. The identity needs its consistency with the taste of existing goods and services as well as the corporate strategy and mission.

For instance, the brand strategy of Toyota Motors Co., which was centered on brands by vehicle type in the past, has recently been changing under the keyword of "making complex". It includes (1) the extension and clarification of brand identity of individual vehicle types, (2) the development of distribution brand strategy, (3) the active corporate brand communication, and (4) the hyper-corporate brands and beyond-corporate brands

The second path is called the "inside-out path", from the viewpoint of the discrimination and relation between the core portion and extended portion of identity. It is an important problem how the brand DNA on each organization levels should be succeeded and evolved. In order to enlarge the scope of management into the total management of identity, the management of individual brand identity has to be carefully performed.

For instance, Duskin, which has been engaged in dust control business by a franchise system since its establishment, has been regarding the franchise system, not products nor business, as its core identity. However, some confusion has been found in the evolution process of Duskin's identity, when it has entered to the food service business (Mister Doughnuts) and the rental service business (United All), and expanded its business to Taiwan. This identity gap came from the lack of uniformity in the development of various products and shops in Mister Doughnuts, and in the franchise rental business.

The Japanese-style brand strategy mainly follows the former of "two paths" of brand evolution and the Euro-American-style brand strategy the latter. However, both paths are only different routes toward the same goal. There may be differences between these two approaches. One is from the whole to the individual and the other is from the individual to the whole.

BRAND IMAGE ANALYSIS

This image survey was performed by the interview requesting reserve method for the adult (age 20-59) of both male and female who drink beer and live in the Kansai district in 2010. The number of effective respondents was 374. Fig. 1 depicts each beer brand's positioning based on product assessment score on the horizontal axis and organization assessment on the vertical axis. The product assessment is expressed by the distance from the origin in supposing the total points of moments of each of functional benefit, emotional benefit and self-expressive benefit respectively as x, y, and coordinates. The organization assessment is expressed by the value of moment. These data express intensity of respondents' impression, i.e. product or brand image.

All brands can be classified into three groups. The first group includes Super Hops, Lager, Super Dry and Kirin Tanrei, which are situated on the diagonal line or its neighborhood. The second group includes Malts and Ichiban-Shibori (first squeeze) which are situated a little detached from the line. The third group includes Yebisu, Black Label and Brau, which are situated at the right bottom detached from the line. Clearly, brands of the first group are on the good balance in product image and organization image. Considering the sales and market share of each brand, this brand group should belong to the power brand. In addition, Super Hops and Malts are relatively high score for organizational assessment. These two brand are belong to Suntory. It means that the corporate name and brand of Suntory has the strong effect on the brand image for their products.

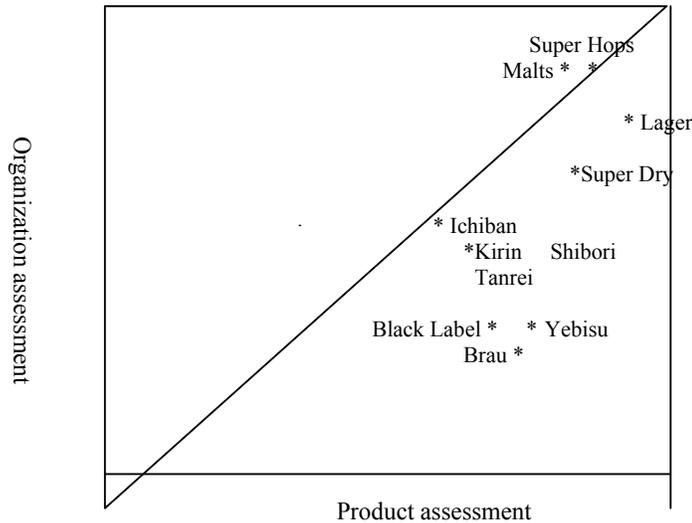


Fig.1 Brand images of beers

On the contrary, Yebisu among three Sapporo's brands, which are considerably detached from the line, keeps a certain royalty thanks to its exceptionally high product assessment. However, one reason why Black Label and Brau are forced to bear a hard fight would be that the low organization assessment to Sapporo leads to a negative effect on the mind share, although their product assessment is on the same level as Super Dry.

Table 1 shows the results of the relationship between the royalty level and the brand selection elements. The appreciation has been divided into three segments of "positive royal" (always one specific brand), "multiple royal" (a few changeable brands) and "non-royal" (no specific brand). On the other hand, factors of brand selection have been specified as symbol (reliability feeling), personality (friendship), organization (corporate image) and products (taste and price).

Table 1: Royalty level and brand selection factors
(%)

	Product	Organization	Personality	Symbol
Positive Royal	29.9	15.8	27.6	26.7
Multiple Royal	38.4	14.9	21.6	25.0
Non-Royal	44.0	2.3	23.1	30.8

In the "positive royal" group, the weight of the symbol, personality and product element among the four elements is almost equal, a bit less than 30 percent. It is obvious that upper phase in the pyramid structure of identity plays an important role for enhancing the relationship between brands and customers. In the "multiple royal" group, the weight of the product element is 38.4 percent and a little higher than that of "positive royal" while the weight of the personality element is 21.6 percent and lower than that of "positive royal". This indicates that the "brand as products" is the important assessment factor in selecting brands. On the other hand, the weight of the organization element is sharply increased than the "non-royal" group. Therefore, the assessment of the "brand as organization" is decisive on the occasion of forming the evoked set and selecting each brand.

In the "non-royal" group, the weight of the product element among the four elements is most prominent, which is much higher than the "positive royal" and "multiple royal". This element includes the price element and so-called cost performance orientation. At the same time, it cannot be ignored that the weight of symbol and personality is respectively 30.8 percent and 23.1 percent. It should be considered that these two elements always play a constant role, while the weight of the organization element is extremely low.

In the "first path" of brand evolution, it becomes issues how four elements (products, organization, personality and symbol) of identity should be combined at organization level. The royalty level of target consumers provides a reliable clue for the brand evolution.

DISCUSSION AND MANAGERIAL IMPLICATION

The Japanese-style brand strategy is on the course of regeneration. For an effective regeneration, it is necessary to reconsider the past and present of the Japanese-style brand. It also needs to elucidate the relationship between the Japanese feature and factors such as the market conditions, competitive environment, and internal marketing resources. When Japanese company extends its business globally on the first "outside-in brand evolution path", it have to reorganize the company's structure (Holt et al 2004, Strizhakova2008, and Melnyk 2012). It may build the "hub and spoke" structure and/or "network" structure with the alliance companies.

At the same time, the more important thing is to analyze the dynamic development process of brand from the viewpoint of life cycle. In this way, the past of the Japanese-style brand would be connected with its present. In this sense, it will be important decision that which factors of Japanese style will be maintained or changed in the global setting.

Generally, Japanese brand strategy still has its weight to the organization-oriented principle and the first path. However, consumers' royalty and their brand selection behavior are bringing to the situation that the intermediate strategy will be more favorable for enhancing brand power than a strategy inclined toward either Japanese-style or Euro-American style. Even if the first path and corporate brand strategy was adopted, the second path and product brand strategy had to be considered for all levels of consumer royalty. It is sought to make the brand evolution in Japan more reliable on the "two paths" and the hybrid brand identity of four brand elements.

REFERENCES

- Batra, R., V. Ramaswamy, D. L. Alden, J. E. M. Steenkamp, and S. Ramachander (2000). Effects of Brand Local and Nonlocal origin on Consumer Attitudes in Developing Countries. *Journal of Consumer Psychology*, 9 (2), 83-95.
- Choi, W. J. and K. P. Winterich (2013). Can Brands Move in from the Outside? : How Moral Identity Enhances Out-Group Brand Attitudes. *Journal of Marketing*, 77(2), 96-111.
- Clifton, R., Maughan E. (2000). *The Future of Brands: Twenty-Five Vision*, Macmillan Press.
- Giesler, M. (2012). How Doppelgänger Brand Images Influence the Market Creation Process: Longitudinal Insights from the Rise of Botox Cosmetics. *Journal of Marketing* 76 (6), 55-68.
- Holt, D. B., J. A. Quelch, and E. L. Taylor (2004). How Global Brands Compete. *Harvard Business Review*, 82 (9), 68-75.
- Ikeo, K. (1999). *Innovation of Japanese-style Marketing* (in Japanese), Yuuhi-kaku.
- Katahira, H. (1994). Changing Consumers: New Branding (in Japanese), *Advertisement* 35, 24-27.
- Keller, K. L. (1998), *Strategic Brand Management*, 2nd ed., Kogan Page.
- Melnyk, V., K. Klein and F. Völckner (2012). The Double-Edged Sword of Foreign Brand Names for Companies from Emerging Countries. *Journal of Marketing* 76 (6), 21-37.
- Ogawa, K. (1994a). *Practice of Brand Strategy* (in Japanese), Nihon Keizai Shinbunsha.

Ogawa, K. (1994b). Review of Japanese Brand Management (in Japanese), *Distribution Industry* 20, 1-2.

Suyama, K., Umemoto, H. (2000). *Japanese-style Brand Superiority Strategy* (in Japanese), Diamond, Inc.

Strizhakova, Y. , R. A. Coulter, and L. L. Price (2008). Branded Products as a Passport to Global Citizenship: Perspectives from Developed and Developing Countries. *Journal of International Marketing*, 16(4), 57-85.

Takashima, K. ed. (2000). *Japanese-style Marketing* (in Japanese), Chikura Shobo.

Tanaka, H. (1996). Japan-U.S. International Comparison of Brand Formulation (in Japanese). In Aoki, Y., Suyama, K. eds. *Development of Strategic Brand Management*, Chuo Keizaisha, 219-243.

UNCOMMON PARTNERS: LEVERAGING E-GOVERNMENT INITIATIVES TO SPUR ECONOMIC ACTIVITY

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ABSTRACT

The nascent field of e-government, which can be broadly defined as servicing the needs of citizens by federal, state and local governments using ICT (a.k.a. C2G), has been expanding since its launch over the past decade or so. This paper will examine the current role played by e-government, highlighting those nations which are extracting maximum benefit from e-government initiatives and why they are achieving such robust gains. It will attempt to locate the nexuses for possible collaboration with for-profit businesses to demonstrate how companies in search of increasing their respective market shares may be well advised to consider governmental collaboration.

INTRODUCTION

Over the past twelve months, equity markets – mostly led by the U.S. – have rebounded substantially from the depressed levels of the past five years, indicating positive momentum buttressed by boosts in corporate profits. As labor participation rates and stubbornly high unemployment rates seem to contradict the economic expansion that points to positive growth, high unemployment levels remain flat, begging the question: what are the factors that could be responsible for raising corporate profits while concomitantly keeping inflation low and unemployment levels high? Like the dismal science itself, economists have not been able to explain this phenomenon while equity purists point to the monthly expenditure by the U.S. Treasury of \$81 billion per month to stabilize the financial markets.

Expansionary fiscal policy by governments typically vary in their outcomes, depending how the dollars are allocated and spent; oftentimes government programs may cause a temporary increase in economic activity, but, as was evidenced in 2009, that activity may disappear one or two quarters after the money is spent. In other instances however, government spending can have unimaginable positive consequences for the economy, as witnessed by the payoff in investing in research and development during the 1960s and early 1970s that produced the now famous TCP/IP protocol suite of communication technologies that are the lynchpins of the modern Internet, which has essentially reshaped every society on earth, making it possible for smaller-sized firms to compete globally and for larger-sized firms to capture an even wider market share; for governments, meanwhile, communication technologies has enabled the efficient and effective exploration of space, bringing into question the likelihood of the colonization of the planets and beyond.

While both for-profit and not-for-profit entities have benefitted greatly from the tremendous strides made possible by technologies such as the Internet, countless billions of citizens living in nations throughout the world have similarly been positively affected by the advancement of information and communication technologies and, for most, this has become manifest in the quick adoption of smartphone technologies that provide all the advantages of portable communication and interoperability with the Internet. However, usage patterns of handheld devices indicate that many end users are passively benefitting from their telecommunication devices – reading and responding to email, browsing the web and keeping up with the social affairs of friends. Internet web sites such as Facebook (> 600 million daily users) and RenRen (the Chinese equivalent of Facebook, having > 1.8 million daily users), Twitter (> 6.6 million daily users), Weibo (Chinese version of Twitter, with approximately 46 million active daily users) and WhatsApp (> 6.7

million daily users with 8 billion Inbound and 12B outbound messages daily) have essentially interconnected people with one another such as never before in the history of mankind, yet the daily contact that people have with their governments – historically the one single entity that touches every citizen of every nation – remains at levels that more or less precede the advent of social media.

The 10 years of evolution that e-government, broadly defined as servicing the needs of citizens by federal, state and local governments using ICT (a.k.a. C2G), has indeed been expanding since its launch over the past decade, but at rates that are disappointing. The costs are substantial and, like the various economic models that have been redefined as a result of leveraging infrastructure programs like the Internet for innovative commercial use, so too has e-government begun to redefine how people interact with their leaders and governmental agencies, some nations extracting higher performance levels than others. In much the same way that e-business and e-commerce models continue to redefine corporate value chain and strategic supply chain management strategies, e-government and its interaction with the for-profit sector offers unbounded economic expansion opportunities that could virtually redefine how many societies interact with domestic and international companies around the world.

This paper will provide an overview of the current role played by e-government, highlighting those nations which are extracting maximum benefit from e-government initiatives and why they are achieving such robust gains. It will also attempt to locate the nexuses for possible collaboration with for-profit business to demonstrate how companies in search of increasing their respective market shares may be well advised to consider governmental collaboration.

E-Government

Most governments view e-government favorably, since implementing technology at national levels ultimately benefits the total welfare of society through providing a mechanism by which they could interact with one another (Agre, 2001). Among the many effects of new and expanding information and communication technologies and the digital revolution is the reality and potential of ICT to increase the efficiency and effectiveness of government, and making governments more responsive to the needs of their citizens (Yong, 2005). This is e-government – the use of ICT transform government to make more efficient, effective, transparent and accountable (West, 2005). A broader definition looks at e-government as the use of ICT to strengthen government performance in areas such as more effective and more efficient provision of government services, opening new methods for people to access government and official information, and making government more accountable to its citizens of the country. This broad definition of e-government centers on tools and applications that can transform the ways government is practiced and the ways public administration reform and good governance goals can be met. In general, a broader view of e-government refers to the overall strengthening of government-citizen relationships, in making internal government processes more efficient and effective, improving the quality of public services, and expanding processes for democratic accountability and control, citizen participation, and collective decision-making. Government often is seen as inefficient and unresponsive in meeting citizen expectations; and citizens do not have an alternative to government. Increasingly, governments are working to overcome such circumstances through the application of e-government.

e-Government Goals

By applying ICT processes and tools, e-government addresses some specific points that improve access to information and services and make government more accountable to citizens. Some of the goals of e-government are as follows:

- Effective delivery of public goods and services to citizens without the interventions and inconveniences of traditional bureaucratic and administrative systems.
- Providing improved access to information and to the systems and structures that constitute government, particularly for marginalized and disadvantages segments of a citizenry that most need the benefits and protections government provides.
- Government also works with and provides services to business; benefits of e-governance for the private sector include streamlined bureaucracy and administration, more immediate and efficient delivery of benefits and services, and better performance of government as a customer.

- Expanded and more accessible opportunities for the direct participation of all citizens, from all segments of the population, for them to be more actively involved in the policy and decision making processes of government, again, particularly the marginalized and disadvantaged segments of a citizenry, which most often have the fewest opportunities to participate.

Value Potential of e-Government

E-Government provides many opportunities to improve the quality service to the citizen. Given the advancement of technologies such as tablets and smartphones, citizens should be able to get service or information from their respective city, state, and/or federal government in minutes or hours, versus pre-Internet delivery norms of days or more typically, weeks.

Citizens and businesses ought to be able to file required reports without having to hire accountants, lawyers and other representatives. Government employees should be able to do their work just as efficiently, timely and in many cases remotely as their counterparts in the commercial world.

E-government can be divided in to four citizen-centered groups, each providing opportunities to transform delivery of services.

- **Individuals & Citizens: Government-to-Citizens (G2C):** Build easy to find, easy to use, one-stop points-of-service that make it easy for citizens to access high-quality government services.
- **Businesses: Government-to-Business (G2B):** Reduce government's burden on businesses by eliminating redundant collection of data and better leveraging E-business technologies for communication. More importantly, steer business opportunities towards the private sector that can provide better assistance and potentially better pricing for particular items typically consumed by citizens (pharmaceutical, eyewear, medical items, consumer electronics, online education, etc.).
- **Intergovernmental: Government-to-Government (G2G):** Make it easier for states and localities to meet reporting requirements and participate as full partners with the federal government in citizen services, while enabling better performance measurement, especially for grants. Other levels of government will see significant administrative savings and will be able to improve program delivery because more accurate data is available in a timely fashion.
- **Intra-governmental: Internal Efficiency and Effectiveness (IEE):** Make better use of modern technology to reduce costs and improve quality of federal government agency administration, by using industry best practices in areas such as supply-chain management, financial management and knowledge management. Agencies will be able to improve effectiveness and efficiency, eliminating delays in processing and improving employee satisfaction and retention.

The 'Typical' Four Dimensions of e-Government

The success of e-government initiatives depends in part on the ability for public administration, as well as the political will of key stakeholders. While the government and its administration play a fundamental role, the e-government environment is shaped also by other stakeholders, including citizens, businesses, civil servants, local, national and international institutions and civil society organizations. Analytically, the e-government environment can be structured in several ways, according to different aspects. But we will focus on the main 4 dimensions on the e-government environment, as indicated below:

- **Infrastructure:** Infrastructure is probably the most obvious and tangible dimension of e government. Since e-government is characterized by procedures and services taking place between administrations on the one side and citizens or businesses (or other administrative entities) on the other, technical infrastructure is needed to carry information and services.
- **Policy:** Different types of policies shape the e-government environment. Trade regulations control the import and export of ICT goods, affecting the provision of services. Policies protecting local ICT industries, including tariff barriers, alter the movement and price of goods in a market. Similarly, antitrust regulations and market liberalization strategies, enforced by telecommunication regulatory

authorities, have created the conditions for greater competition in the sector, the introduction of new technologies and services, and better prices for consumers. Likewise, the inclusion of universal service obligations in the licenses of telecommunication incumbents or Internet providers has promoted access to ICT infrastructure in least served areas, such as rural and low income communities.

- **Governance:** Governance, that is, the performance of public administration, is an important factor for the success of e-government initiatives. The World Bank defines governance as the exercise of political authority and the use of institutional resources to manage society's problems and affairs. The optimum performance an administration can strive for is to produce a “worthwhile pattern of good results, while avoiding an undesirable pattern of bad circumstances”. Therefore, to achieve good governance, different factors need to be balanced, including costs, freedom of the individual vs. the common good, local, national or global interests, as well as short and long term gains vs. losses. The negotiation of these factors may lead to different results and performances, as places and times change.
- **Outreach:** The dimension of e-government most prominently perceived and experienced by end users, namely companies and citizens. Often referred to as the “horizontal integration” of public services, this dimension brings together various service offerings to the end-users.

An Overview of U.S. e-Government Services

In the FY 2008 Report to Congress regarding the implementation of the e-Government Act of 2002, several developments and improvements to the U.S. e-government system are noted. Specifically mentioned is the website USA.gov, which serves as the central portal for citizens seeking government information, benefits, and services. The report explains that “new search tools and technologies have been added to USA.gov to aggregate and present information on jobs, weather, congressional contact information, federal forms and FAQs from over 40 Federal agencies” (USA E-Government Task Force, 2009). Furthermore, the OMB emphasizes the importance of the National Contact Center, which provides information about government services over the phone in English and Spanish, as well as an online chat forum providing instant answers to FAQs from citizens.

An agency-specific example of improvements in the U.S. e-government system would be disaster assistance services through FEMA. This system, which was completed in December 2008, streamlines the process that disaster victims must take to apply for and receive benefits from multiple government agencies (USA E-Government Task Force, 2009).

From a casual observer, one may wonder how valuable the E-Government Act of 2002 has been in providing citizens with more efficient and accessible information, resources, and services online. According to a report published by the Brookings Institution (2008), the U.S. e-government initiative has been successful, but still has room for improvement. For example, the good news is that 89% of U.S. e-government websites have services that are fully executable online, and 40% offer some type of foreign language translation. However, the bad news is that only 3% of U.S. government websites are available from a PDA or handheld device, although that number has changed somewhat in recent years, and only 25% of federal websites are accessible to the disabled (West, 2008). So while the Office of Information made a lot of progress in making services more accessible to citizens during the period 2002 - 2008, there are issues that still remain. For example, the ascent of portable devices has resulted in more people viewing the Internet through handhelds than through laptop or personal computers, yet while the for-profit sector is pushing ahead to retrofit screen redesigns to match the changing consumer devices, e-government programs have yet to move at a pace that is anywhere near the rate of technological advancement that is exhibit in the for-profit industry. Given President Obama’s IT-intensive campaign and trademark skillful use of information technology and the Internet in spreading information and encouraging participation, one could predict that his administration would ensure greater improvements in the U.S. e-government system, although that remains to be seen.

The Costs of e-Government

It is not difficult to imagine that streamlining governmental services by incorporating easy-to-use web interfaces can very costly. According to the Congressional Budget Office (CBO), the early cost estimates for implementing the E-Government Act of 2002 were \$60 million for 2003 and \$600 million over the period of 2003-2007 (CBO, 2002). These estimates were based on: the cost of developing, implementing, and

maintaining a federal portal, funding interagency projects, creating an office for information security, technology training and education, and studying national disparities in Internet access. A major justification for federal e-government funding was that it would help to reduce long-term costs. In other words, the more information and services that can be provided electronically, the less expensive and bureaucratic it will be for the government to provide these programs in a traditional fashion. As captured in a phrase made popular during the 1990s and attributed to Al Gore famously at the time, the ultimate goal is a government that “works better and costs less.” In 2007, that same CBO office stated that the legislation would authorize appropriations for programs to improve the coordination, deployment, and access to government information and services, and centralize many Internet-related activities currently underway throughout the US government at an average cost of about \$6 billion per year during the period 2008 – 2012 (CBO, 2007).

The Challenges of e-Government

One very important challenge to discuss is the lack of Internet access that still exists for citizens of the U.S. Estimates place the number of Internet active users at about 227,719,000 in the U.S., which translates into 74.1% of the population that has reliable Internet access, and leaves 25.9%, or approximately 80,000,000 members of the population still without. This is an alarming number of American people without consistent access to the Internet, and more specifically, without e-government services and information. As with many disparities in the U.S., there are correlations between Internet access, education level, and household income. Additionally, Hispanic and African-American households and those who reside in rural areas are disproportionately less likely to have Internet access in their homes. The above statistics present a large challenge for the U.S. e-government system. It is quite possible that the government did not conduct a needs assessment or survey before deciding to implement an e-government system, especially since the lower echelon of citizens would most likely comprise the greatest potential users of e-Government. As previously stated though, the number of individuals actively interacting with the Internet through their cell phones is rising at astonishing rates, so the metrics are not as dire as they first appear to be; however, the rate at which the massive e-government program in the U.S. is adopting to the smaller screen sizes attributed to this rising tide is somewhat disappointing.

Comparative E-Government

In March 2013 The Waseda University Institute of e-Government for the ninth consecutive year published the rankings for the development of e-Government worldwide (55 countries). The research was conducted by Waseda University in cooperation with International Academy of CIO with partner universities to organize the workshops and meetings. Key facts follow, highlighted in Tables 1 & 2:

Table 1: Historical Rankings of e-Government, by Nation

No	Final Rankings	Score
1	Singapore	94.00
2	Finland	93.18
3	USA	93.12
4	Korea	92.29
5	UK	88.76
6	Japan	88.30
7	Sweden	87.80
8	Denmark	83.52
8	Taiwan	83.52
10	Netherlands	82.54

	2008	2009	2010	2011	2012	2013
1	USA	1 Singapore	1 Singapore	1 Singapore	1 USA	1 Singapore
2	Singapore	2 USA	2 UK	2 USA	1 Singapore	2 Finland
3	Canada	3 Sweden	2 USA	3 Sweden	3 Korea	3 USA
4	Korea	4 UK	4 Canada	4 Korea	4 Finland	4 Korea
5	Japan	5 Japan	5 Australia	5 Finland	5 Denmark	5 UK
6	Hong Kong	5 Korea	6 Japan	6 Japan	6 Sweden	6 Japan
7	Australia	7 Canada	7 Korea	7 Canada	7 Australia	7 Sweden
8	Finland	8 Taiwan	8 Germany	8 Estonia	8 Japan	8 Denmark
9	Sweden	9 Finland	9 Sweden	9 Belgium	9 UK	8 Taiwan
9	Taiwan	10 Germany Italy	10 Taiwan, Italy	10 UK Denmark	10 Taiwan Canada	10 Netherland

Ranking for 2013

Ranking from 2008 - 2013

Table 2: Historical Rankings of e-Government, by Nation

Indicators	Dimensions
1. Network Preparedness/ Infrastructure	1-1 Internet Users 1-2 Broadband Subscribers 1-3 Mobile Cellular Subscribers 1-4 PC Users
2. Management Optimization/ Efficiency	2-1 Optimization Awareness 2-2 Integrated Enterprise Architecture 2-3 Administrative and Budgetary Systems
3. Required Interface/Functioning Applications	3-1 Cyber Laws 3-2 e-Tender systems 3-3 e-Tax system 3-4 e-Payment system 3-5 e-Voting system 3-6 Social Security service 3-7 Civil Registration 3-8 e-Health system
4. National Portal/Homepage	4-1 Navigation 4-2 Interactivity 4-3 Interface 4-4 Technical
5. Government CIO	5-1 GCIO Presence 5-2 GCIO Mandate 5-3 CIO Organizations 5-4 CIO Development Programs
6. e-Government Promotion	6-1 Legal Mechanism 6-2 Enabling Mechanism 6-3 Support Mechanism 6-4 Assessment Mechanism
7. e-Participation/Digital Inclusion	7-1 e-Information and Mechanisms 7-2 Consultation 7-3 Decision-Making

Source: Ibid.

Case Study 1) E-Government in Finland

Finland declared broadband Internet access as a legal right for its citizens in October 2009, the first nation in the world to do so. The legislation requires that telecom companies be required to provide Internet access to the entire population of Finland. A spokesperson cited the country's reason being that the Internet is "something you cannot live without in modern society" and related it to common utilities such as water and electricity. Ironically, Finland was already one of the most connected countries in the world, and this mandate was intended to bring access to rural areas and increase connectivity speeds for the population as a whole. This is the key reason of success for the Finland in implementing e-government in their country. After Finland's mandate was passed, other countries such as Estonia, France, and Greece followed suit with similar legislation. This initiative helps to shed light on the U.S.'s low Internet access rates and begs the question of if and when a similar policy will be enacted in the U.S., although the size of the nation, degree of remoteness of specific towns, adoption of computing devices, ability to speak English, etc., amplifies the complexity of this potential undertaking.

Case Study 2) E-Government in Dubai

One major threat that has recently become an even bigger priority for the U.S. government than widespread broadband distribution for the U.S. e-government infrastructure is cyber security. While online security and the privacy of information is a major concern for any country with an e-government system, Dubai officials believe that they have found the best practice and are seeking certification through the ISO 17799 standard. The ISO (International Organization for Standardization) is the world's most recognized developer and publisher of international standards. Their ISO 17799 standard provides guidelines and principles for maintaining and enhancing information security management within an organization. Dubai recognizes the ISO 17799 as the best way to ensure that their e-government services are safe and trustworthy for citizens. For each government agency that wishes to provide services online, Dubai requires that they undergo a risk assessment by a team of specialists who examine the safety and reliability of the current security system. After a thorough inspection, recommendations are made as to how the organization can better improve its security system and comply with the standards provided in ISO 17799. The security standard is achieved by,

“implementing a suitable set of controls, including policies, processes, procedures, organizational structures and software and hardware functions”. This standard provides a good measure of internal security awareness and preparation, as well as outlining objectives for information management.

New trend in e-Government

Use of Cloud computing: Cloud computing permits to uniformly cover the whole country with e-government solutions, independently of divergence of local administrative units that may be better or worse prepared to provide e-services. Service-oriented architecture facilitates provision of compound services covering whole customer processes.

M-government and Social Media: Mobile government, sometimes referred to as m-Government, is the extension of e-Government to mobile platforms. Governments can use social media to connect with citizens or businesses to exchange information interactively. Social media has substantially changed the way that organizations, communities, and individuals communicate.

Open Government/Big Data: The OECD defines [open government] as “the transparency of government actions, the accessibility of government services and information and the responsiveness of government to new ideas, demands and needs”. Together, these three building blocks are seen to support a number of benefits for government and societies. Big data which can handle large amount of data will be the key success of e-Government which needs to handle large data of entire population.

CONCLUSION

Electronic government in the U.S. has come a long way since it declared it a national objective in 2002. But e-Government also faces some of the challenges, notably information assurance, security and broadband deployment. Many developing nations have also successfully and efficiently implemented e-government and have come a long way, using the U.S. as a reference model. Also, with the emergence of mobile technology and cloud technology, the future success of the e-government will largely depend on implementing these new technologies to serve citizens of these nations. A follow-up that must be addressed is the role that private enterprise can and will play in future versions of electronic government.

REFERENCES

- Agre, P. (2004). The Market Logic of Information. *Knowledge, Technology, and Policy*, Volume 13, number 1, 2001, pp. 67 – 77.
- CBO (2002). CBO (2007). E-Government Reauthorization Act of 2002. *Congressional Budget Office Cost Estimate*, pp. 1 – 4, available at: <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/39xx/doc3984/hr2458.pdf>
- CBO (2007). E-Government Reauthorization Act of 2007. *Congressional Budget Office Cost Estimate*, pp. 1 – 4, available at: <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/88xx/doc8873/s2321.pdf>
- Congressional Budget Office (CBO) Cost Estimate Yong, J. (2005). E-Government: Enabling Public Sector Reform. *E-Government in Asia – Enabling Public Sector Innovation in the 21st Century*, Times Media Private Limited, 2005, p. 13.
- West, D. (2005). Democratization and Technology. *Digital Government: Technology and Public Sector Performance*, Princeton University Press, 2005, pp. 180 – 181.
- West, D. (2008). State and Federal Electronic Government in the United States, 2008. *Governance Studies at Brookings*, pp. 1 – 3, available at: http://www.brookings.edu/~media/research/files/reports/2008/8/26%20egovernment%20west/0826_egovernment_west

ENTERPRISE DIAGNOSIS AND THE STOILMo

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ABSTRACT

The enterprise logistics, for its close relation with all the aspects of an organization, it is an ideal tool to achieve the diagnosis of the functioning of an enterprise. In the academy four qualitative-quantitative models have been created to facilitate the teaching of logistics and it has been proved that these models can be used in the organizations to realize diagnoses of its functioning. One of these models is the Logistic, Strategic, Tactical, Operational with Inverse Logistics Model (STOILMo [MoLETOI]), which analyzes the logistics through the administrative pyramid, following strategic, tactical and operative stages. For this model its stages and its phases have been worked, and different questions have been used for the diagnosis, but an analysis of these questions has not been performed. The objective of this work is to show how the STOILMo (MoLETOI) functions, how can it be used to perform enterprise diagnosis, explaining mainly the standardization of its questions. To achieve this general objective and its specific objectives, the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS) will be used.

INTRODUCTION

The enterprise logistics covers many knowledge fields: Supply-Procurement (Cachon & Swinney, 2009; Puschmann & Alt, 2005); Production (Ivanov, 2009; Karageorgos et al., 2003); Flows (Rice & Hoppe, 2002); Distribution (Coe et al., 2008; Hesse & Rodrigue, 2006) including there the transport (Lemoigne & Dagnaes, 2003); Reverse logistics (Gungor & Gupta, 1999), just to mention some of the most relevant, this confluence of so many knowledge fields in enterprise logistics makes its study very complex. Nevertheless this difficulty for its teaching it is an advantage, when wanting to do diagnoses. Being involved with virtually all areas of an organization, with a focus centered in the logistics, makes easier to produce a diagnosis of the good or bad performance of an organization.

On the other hand, to minimize the difficulty of teaching logistics four qualitative-quantitative models have been created (Hernández et al., 2013), which try to cover all these aspects that have relation with enterprise logistics. These models and his respective approaches are: A) The Supply, Production, Distribution and Inverse Logistic model (LSPDI, in Spanish el modelo Logístico, Abastecimiento, Producción, Distribución e Inversa [LAPDI]), centered in flows; B) The Logistic Model Based on Positions (LoMoBaP, in Spanish Modelo Logístico Basado en Cargos [MoLoBaC]), studies logistics through the functions performed by the managers in logistic positions in an organization; C) The Logistic Model Based on Indicators for Positions (LoMoBaIPo, in Spanish Modelo Logístico Basado en Indicadores de Cargos [MoLoBaCa]), which overcomes MoLoBaC and measures enterprise logistics through indicators and D) The Logistic, Strategic, Tactical, Operational with Inverse Logistics Model (STOILMo, in Spanish Modelo Logístico, Estratégico, Táctico, Operativo con logística Inversa [MoLETOI]), which analyzes logistics through normal stages of administrative analysis: Strategic, Tacit and Operative and which will be object of study in this work.

The MoLETOI (STOILMo) is represented by four stages of four phases each (See figure 1) and in it is advanced from the Strategic stage up to the Operative one, passing previously by the Strategic-Tactic and Tactic-Operational. MoLETOI, through its sixteen phases, as the other three qualitative-quantitative models mentioned, it is of great utility on performing managerial diagnoses, especially when asking the right questions, from this the objective of this work arises: to show how the STOILMo (MoLETOI) functions, how can it be used to perform an enterprise diagnosis, explaining mainly the standardization of its questions.

This general objective involves three specific objectives:

- To present, the stages and phases of MoLETOI.
- To describe the different questions those are used in MoLETOI.
- Indicate how it can make the diagnosis of a company using MoLETOI.

To reach the raised objectives it will follow the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS, in Spanish, Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones [MIASAD]) (García, et al., 2011), which because its flexibility and ability to adapt to different types of research, as indicated Hernández, et al. (2013), the steps considered important could be applied, therefore as done in other researches (Hernández, et al., 2013) only the following steps will follow:

a) To define the problem that, as is indicated in the objectives is to show how the MoLETOI works and how it can be used to realize a managerial diagnosis;

b) To prepare the first prototype, where the users of the final product will be identified, the main readers of this article which will be all the studios of the enterprise logistics interested in the diagnoses of organizations and those who think about how to have new approaches and concerned with the application of quantitative-qualitative tools. Also, there was established the structure of the article, which in addition to the introduction will consist of two central chapters, in the first one of them, that is the main one of the work, the stages and the phases are detailed and the questions of the MoLETOI are standardized, in the last one a brief indications will be given of as is used MoLETOI to complete a business diagnosis;

c) Obtaining data, in this case on logistics models, diagnosis and the organizational pyramid of management science;

d) Establishing alternatives, which will be the different questions that MoLETOI could use to realize enterprise diagnoses;

e) Evaluate alternatives, according to possibilities for a precise enterprise diagnostics;

f) Selecting the alternative, according to the previous evaluation and considering the secondary objectives, whether they are tacit or explicit;

g) Implementing the best alternative, illustrating, as MoLETOI with these questions can make a proper enterprise diagnostics;

h) Establishing controls, the mechanisms, that allows to recognize if the solution obtained, continues being valid in the course of the time.

With regard to limitations and reaches, especially by reasons of space, no field work will be made, but they will be shown a great number of the questions that uses the MoLETOI and will be discussed as they apply for an enterprise diagnostics.

QUESTIONS OF MoLETOI (STOILMo)

Just as it is indicated in Hernández & García (2009), MoLETOI origins date back to the 2006 and its fundamental bases are in Dornier et al. (1998) and Diaz et al. (2004). The phases of the MoLETOI go beyond than their simple statement; they describe a series of aspects that are expected to be known upon having concluded. To be able to know all the necessary aspects in every phase there is a set of questions that must be asked. Subsequently they will be presented with certain detail the phases of the MoLETOI, and some of the questions that must be made to determine the performance of an organization, in accordance with the respective phase. For space reasons, not all questions may be submitted, nevertheless it will try to include as many as possible, trying that the ones no present could be inferred from the others. This should not present greater difficulty, since part of what is expected as product of this work is the standardization of the questions of the MoLETOI. As for the details of each phase, they were already commented in Hernández & García (2009) and other works there cited, but the majority of these are only available in Spanish.

The first stage, Strategic allows, through the four phases, measuring the initial bases of the organization in study. For the phases of this phase has:

01. To define: Vision, Mission and Principles of the organization.- In addition to verifying that the company has clearly stated and is applying its Mission, Vision and Principles, it is necessary to recognize the reason of being of the enterprise, especially distinguishing its product lines and services, and market sectors and goals which are directed. The seven questions to ask at this stage are:

01.01. The company with respect to its Mission, does it fulfill it?:

Very bad (1 to 12); Bad (13 to 26); Regular (27 to 40); Less than good (41 to 55);
Good (56 to 70); Very good (71 to 85); Excellent (86 to 100).

The first 01 of the identification 01.01 it corresponds to the phase 01 and the second 01 to the first question of the phase, this identification will be constant for all the phases and all the questions. As well as the scale shown among parenthesis for each one of the seven possible answers it will also be constant. According to the question the Very bad can signify total non-existence or a total bad performance, while Excellent or could signify that has always been present or has an excellent performance in every moment and by all aspects involved. For the intermediate scales, similar reasoning will be had where the requisite could had been defined, or the resource had but not in the adequate conditions, or not applied correctly at all levels of the organization. In any case, the one responsible for carry out the diagnosis should be able to explain this in every sense. Additionally for the questions of the first two stages, especially the Strategic stage, one should be very careful and remember that it is only measuring what is strategic or if there is a long-term planning and if it has been successful, and if possible to measure its applicability over time.

Before initiating the group of questions it should be agreed with the diagnosed organization leader, if it prefers to give its answer with a qualitative qualification or if directly prefers to do a numerical qualification. Anyway it should be warned that in the end the answer should be expressed with a number, whereby after qualifying the situation, equal to, and within a closer range, giving a final value. In general it is necessary to allow that the enterprise would prefer some questions in qualitative form and others in quantitative form. If it decides to give his response in numerical form directly, the question should be formulated in a way such that the answer is a value. The question 01.01 previously discussed, it was possible to present: In a scale 1 to 100, with which value does it qualify the Mission of the enterprise?.

The questions 01.02 and 01.03 will be very similar to the question 01.01, in which it will only change Mission by Vision and Principles, respectively. Also at this stage 01 the following questions must be asked:

01.04. Since the beginning was it clear in the enterprise which needs could satisfy its products or services. (In a scale 1 to 100, with which value does it qualify the knowledge that the company has had from his origins, with respect to the needs that can satisfy his services and products?).

01.05. For all the members of the organization, how well-known are the lines of products. (In a scale 1 to 100, with which value does it qualify the knowledge that there have all the members of the organization of his lines of products?).

The questions 01.06 and 01.07, will be very similar to the question 01.05, but referred instead of product lines, market targets and market sectors respectively. The advantage of the Strategic stage is that if a fault is detected corrections can be established immediately. That is to say if an organization has failures in the definition of its Mission, Vision or Principles, at once they must be defined or corrected; if an organization did not know well the needs that satisfied its products and services, their product lines, goal markets or their market sectors to which they are directed, it is necessary, at once, to establish a program so that this information comes to the whole personnel involved.

Similarly to what was done for the stage 01, it will be done or all the different phases, only that by reasons of space they will be presented in a more summarized manner. Table 1, will show the rest of the questions in the Strategic stage, for the remaining stages there will be done a combination of the steps followed for table 1, with what was performed in phase 01.

In the questions of the phases 02, 03 and 04 as indicated for the questions of phase 01, any deviation should be corrected immediately. For the next three stages, the political environmental and the levels of service defined in this fourth phase must serve as measurement and orientation.

The second stage, Strategic-Tactics, help measure aspects of the transition between the strategic and tactical. For four phases of this stage it is had:

05. To analyze the supply sources.- It should be measured if it has suppliers for all the supplies and if these are the most suitable as well as which continuous improvement programs can be established with them, at the same time it should revise the programs of selection, evaluation and monitoring of suppliers and of the technologies that should be acquired for the reception and management of all the supplies.

For this phase nine questions will be asked in a similar manner to the showed for the Strategic stage, covering the following aspects: 05.01 Analysis of the suppliers of all the possible supplies; 05.02 Suitability of the suppliers; 05.03 Continuous improvement programs; 05.04, 05 and 06 Selection programs,

of evaluation and monitoring of the suppliers; 05.07, 08 and 09 Selection programs, of evaluation and monitoring of technologies for the reception and management of all the supplies.

Table 1. Remaining questions of the Strategic stage.

Phase 02. To visualize the integration of the supply chain.- It should verify what level of integration with the supply chain is needed in the market in which it operates or expects to operate the organization, who would be its members and levels of commitment in front of them, also it is necessary to verify if the proposed integration has been obtained to plenitude.	
Question	Aspects that covers the question
02.01	Level of integration to the supply chain need in the market where it operates.
02.02	Members of the supply chain in the market where it operates.
02.03	Level of commitment front the members of the supply chain.
02.04	Level of integration achieved with supply chain.
Phase 03. To visualize the information system.- Check if there was a clear vision of how communications would be not only in the area of logistics but throughout the enterprise, and even with the rest of the chain, ensuring smooth communication in all directions, making use of the suitable technologies of the communication.	
Question	Aspects that covers the question
03.01	Knowledge of how would be the communications in the area of logistics.
03.02	Knowledge of how would be the communications in the company.
03.03	Knowledge of how would be the communications in the supply chain.
03.04	Information flow in all directions.
03.05	Use of the suitable technologies of the communication.
Phase 04. To define the environmental and the customer service politics.- Check whether the policies of respect and care for the environment and the customer service are being achieved and if they respond to an appropriate service costs. These established levels of service must be the fundamental base for the development of the remaining stages of the model in the organization.	
Question	Aspects that covers the question
04.01	Politics for the respect and care of the environment.
04.02	Politics of customer service.
04.03	Achievements reached with the politics for the respect and care of the environment.
04.04	Achievements reached with the politics of customer service.
04.05	Costs benefits ratio of the environmental politics.
04.06	Costs benefits ratio of the politics of customer service.

06. To analyze the inverse logistics politics.- Evaluating reverse logistics policies, verifying, among others aspects, if the technological tools used to apply them are the adequate and measuring, for these politics its impact, in the environmental, market and especially in the economic.

Similar to the previous phase, for the phase 06 there are five questions to cover: 06.01 Politics of inverse logistics (IL); 06.02 Technological tools used in the IL; 06.03, 04 and 05 Impact in the environmental, in the market and in the economic-financier of the politics of IL.

07. To select the technologies of the productive processes and to establish the logistical flows (LAPDI).- To check that the selected technology of the productive processes is adapted for the organization, while simultaneously check all the flows, particularly of information, of control and especially of materials, as much in the direct process of formation and commercialization of the final products, as in the inverse flows, of those materials that return to the organization through the inverse logistics. If failures are failures, it should be applied a deeper analysis through the model LAPDI.

The questions for this phase are nine, which have their reach on: 07.01 The technologies of the productive processes; 07.02, 03, 04, 05, 06, 07 and 08 The adequate management of the flows of: information, direct materials, inverse materials, control, monetary, energy and persons; 07.09 The situation of the management of the flows and the complete application of the model LAPDI. For the response of the latter question it is necessary to understand that Very bad it is slightly necessary and Excellent as very necessary, so the higher these values would be worse for the organization, for which, on having expressed it

along with other values of the remaining questions, it is necessary to register 100 minus assigned value, so that, on having realized the average, the sense of the diagnosis is supported.

08. To establish the distribution strategies.- According to established supply chain, in terms of customer service and according to the flows found in the previous phase, is revised if properly established distribution strategies are followed, measuring the technologies of storage and transportation to be utilized and especially its feasibility of application in the market where it is or is going to play the organization.

The set of questions of this phase are six: 08.01, 02 and 03 Adequacy of: the strategies of distribution, the technologies of storage, strategies and technologies of transportation, established to follow; 08.04, 05 and 06 Feasibility to apply the strategies of: distribution, of storage and of the transportations.

Although not immediately as in the Strategic stage, it is necessary to rectify, as soon as possible, any bad functioning found as a response to the questions asked in this Strategic-Tactical stage.

The Third stage, Tactical-Operative, must verify tactical principles and its transition to the operational stage, for this task the following phases apply:

09. To establish the politics of quality management.- According to customer service and being this a fundamental aspect of any modern organization, it should be verified that the politics of quality management established are the adequate and if they actually can be implemented, remembering that this is not only to have total control of the quality of the materials, but also the processes, equipment and even human performance, is to say operators can work with the required standards.

Its six questions: 09.01 The adequacy of the policies established for the quality management; 09.02 The implementation of the politics 09.03, 04, 05 and 06 Management, of the total control: quality of materials, processes, equipment and human performance.

10. To establish the maintenance politics.- To ensure a high customer service, politics of maintenance should be established, that guarantee a high operability of the machines and process, by which should be verified that the quantity of maintenance based on forecasts, the preventive and corrective are in adequate dose and particularly the relation among them is the best for the organization.

For this phase will have seven questions: 10.01, 02, 03 and 04 The adequacy of the policies established for maintenance: general, predictive, preventive and corrective, according to the process and the time of operability of the machines; 10.05, 06 and 07 Taking into account the costs and the time machine operability, the relation among maintenance: predictive to corrective, predictive to preventive, preventive to corrective.

11. To establish plans and operational controls and the integration of the information systems.- It should be verified, that the productive levels and the systems of control to guarantee the same, are working in accordance with the established plans and that simultaneously are perfectly integrated to the systems of information, permitting a system of prediction and of early alarm, that function with a high efficiency.

Here are four questions: 11.01 Production levels, according to established plans; 11.02 Control systems to ensure production levels; 11.03 Integration of control systems and information systems and 11.04 The system of prediction and early alarm of the productive levels.

12. To establish the organization and the functions of the positions (MoLoBaC).- To verify that the flow chart established for the organization is implemented in a suitable way and that the established positions redeem the functions that it corresponds to them, minimizing the duplicities and dispersion in the performance. If major faults are noted, one should resort to an application of the MoLoBaC, used as model to measure the dispersion in the positions.

The six questions of this phase will be: 12.01 Implementation of the established flow chart; 12.02 The functionality of the flow chart; 12.03 For all positions, globally, as for the performance of the functions that it is up to them to execute in accordance with the established flow chart; 12.04 and 05 For all positions, globally, in terms of: the duplicity, dispersion of the functions that corresponds them to execute; 12.06 Considering the situation of the duplicity and dispersion of functions, the complete application of the MoLoBaC. The qualification of 12.06 is done similarly to the 07.09.

In this stage, Tactical-Operative and in the Operative stage, which will be analyzed next, detected faults usually require a deeper analysis for correction, since they have greater impact in the performance of the organization.

Last stage, Operative, is the closing of the model and with it should be verified that the strategies and tactics established are being performing adequately to reach the objectives established in the Vision and Mission of the organization. These last four phases are:

13. To implement resource handling politics.- It should verify that what was planned in regard to resource management: financial, material, of technology and any other, but especially the human resources, is being carried out properly, especially the latter, where it is necessary to verify that the systems of remuneration and incentives are adapted for the organization and his members.

Thirteen questions of this phase: 13.01, 02, 03, 04, 05 and 06. The implementation of resource handling: financial, material, of technology, human, energy and other are in accordance with the enterprise planning; 13.07, 08, 09, 10, 11 and 12 The plan of the handling of the resources: financial, material, of technology, human, energy and other with respect to the current situation; 13.13 The adequate systems of remuneration and incentive for the organization and its employees.

14. To implement the quality, maintenance and inverse logistics management.- Separately and integrated, it is necessary to verify that the measurements and quality controls, of the different types of maintenance and of reverse logistics (IL) policies are being implemented in accordance with the provisions and if they are given the expected results, thereby achieving customer services that were prescribed.

Fourteen questions are: 14.01, 02 and 03 The implementation of management of: quality, maintenance and the IL in accordance with the enterprise planning; 14.04, 05 and 06 The integration of the implementation of: the quality management with maintenance management, quality management with the IL and maintenance with the IL; 14.07, 08, 09, 10 and 11 The measurements and controls of: quality, maintenance: predictive, preventive and corrective and IL and its application, in accordance with the enterprise planning; 14.12, 13 and 14 Excellent customer service and management programs: quality, maintenance and IL that they are applying.

15. To implement the management of transports, inventories and warehouses.- To verify that with the necessary frequency, it is taking the control of the inventories, as well as the management of the stores and above all the management of the transportations, with special attention to the handling of the fleet, the routes and the deliveries, analyzing if a constant review is realized that allows to detect any possibility of improvement in the handling of these three fundamental aspects in the distribution stage of the logistics and Supply Chain: inventories, store and transport, which is usually the major monetary expenses.

Here are thirteen questions: 15.01, 02 and 03 The implementation of the managing of: transport, inventories and stores in accordance with the plan; 15.04, 05 and 06 The program of handling managing: transport, inventories and stores in accordance with the current situation of the environment; 15.07 The quality of the deliveries; 15.08, 09, 10, 11, 12 and 13 As for offering opportunities of improvements, the frequency with which reviews the management of: the inventories, the stores, the transports, the fleet, the routes and the quality of the deliveries.

16. To implement the politics of management control (MoLoBaICa).- To determine the existence and good use of management indicators. If it is detected that the potentialities are not exploited, or there are clear failures, the application of MoLoBaICa is recommended to: verifying if the standards of adequate performance are achieved, to identify potential and to detect real flaws, to invest there the resources that will allow improving them.

The six questions of this phase will be: 16.01 The implementation of the management control politics, in accordance with the planned; 16.02 The management control politics, in accordance with the current situation of the environment and of the organization itself; 16.03, 04 and 05 The: quantity, quality and potentiality of the management indicators implemented in the different areas of the organization; 16.06 The complete application of the MoLoBaICa, in accordance with the management indicators implemented in the different areas of the organization. The qualification of 16.06, it will be done similarly to 12.06 and 07.09. Of the hundred twenty (120) questions to ask, the stage with the greater number is Operative with forty six (46). This number of questions in the last stage was to be expected, since it represents the present time and offers the greatest potential for improving performance, for which it is necessary to study and to value its performance in major detail. Subsequently some very brief comments about the application of these questions, to do diagnoses across the MoLETOI will be done.

BRIEF COMMENTS OF THE DIAGNOSIS WITH MoLETOI

For reasons of space and because it escapes the objectives of this work, only some very brief comments about how it complete the diagnosis through MoLETOI will be made. Already with each one of the 120 questions it is had an evolution of the most important aspects of the organization, but they can also offer an evaluation of each of the phases. As for all the answers yielded a numerical value between 1 and 100 and given that the importance of each question is similar to the remaining ones of the phase, a simple average of the values obtained in each of the responses is done. This average will allow qualifying as it is the performance in each of the phases. For the first stages, Strategic and Strategic-Tactical, it is recommended to realize the corrections immediately as it was indicated while preparing the questions. For the Tactical-Operative and Operative stages, it is necessary to perform a more careful analysis of the corrections to implement, but in any case, in accordance with the evaluation obtained in every question, it is necessary to do a recommendation of the actions to take in the same way that is done for each phase, although in general it is a compendium of the actions performed to solve the possible problems detected in every question.

For the evaluation of each of the stages are applied weights table 2 and a normalization is done, dividing by the entire weight of the stage, indicated for each stage in the last line of table 2. Finally to have the finished evaluation of the organization the weighted average of the evaluation of four stages is calculated. Again according to the result there are a series of recommendations that the organization can take.

Table 2. Weighing of the phases and stages of the MoLETOI.

Stages							
Strategic		Strategic-Tactical		Tactical-Operative		Operative	
Phase	Weight	Phase	Weight	Phase	Weight	Phase	Weight
01	01	05	02	09	06	13	10
02	01	06	03	10	07	14	12
03	02	07	04	11	08	15	13
04	02	08	05	12	09	16	15
Weight (stage): 06		14		30		50	

In summary, it has 120 individual assessments, an evaluation for each phase, an evaluation for each stage and a general evaluation of the organization, being each of these evaluations accompanied of one or a set of recommendations. Presented in global form as MoLETOI works, subsequently some conclusions and future investigations are presented.

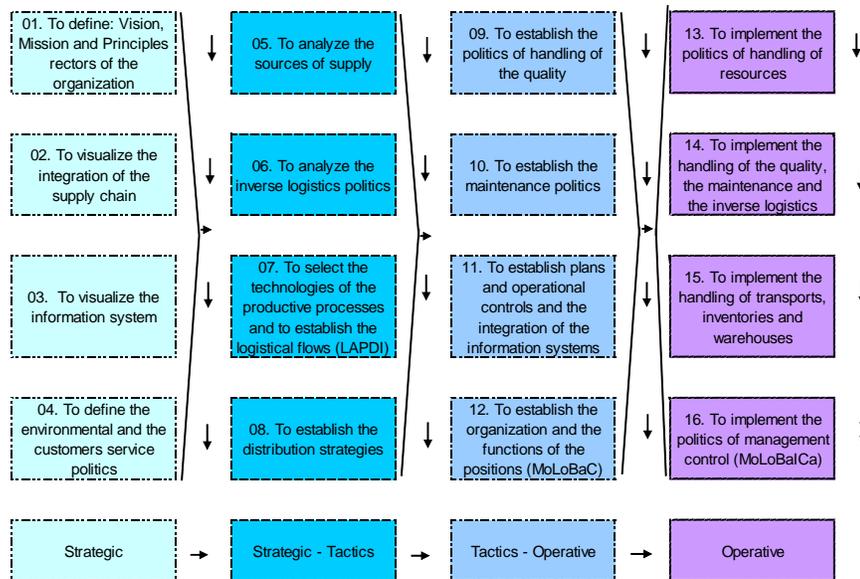


Figure 1: The Logistic, Strategic, Tactical, Operational with Inverse Logistics Model (STOILMo)

CONCLUSIONS AND FUTURE INVESTIGATIONS

In this work besides presenting the different phases and to briefly explain how they can be weighed, the 120 questions necessary to realize a diagnosis of an organization were presented, following the Logistic, Strategic, Tactical, Operational with Inverse Logistics Model (STOILMo [MoLETOI]), complying thus with the objective proposed. The 120 questions of the MoLETOI, undoubtedly allow performing a good diagnosis of the performance of an organization. But additional to having a clear vision of these aspects, it is possible to make a diagnosis of each of the phases, averaging the questions asked for each of them, that go from 4, in the phases 02 and 11, until 14 in the phase 14. Known the value of each phase will allow knowing the value of each stage, simply by averaging the weight of the evaluations of each of the phases that compose it and finally by making the weighted average of the stages, a general evaluation for the organization will be had. To continue deepening the study of the MoLETOI, it is recommended to prepare a set of recommendations that must be given to an organization, according to the scoring reached in each question, each phase, each stage and the organization as a whole. Another recommendation is to analyze the possibility to work MoLETOI through a system of indicators, which allows tracking the results of the different diagnoses that it can provide for an organization.

REFERENCES

- Cachon, G. P. & Swinney, R., "*Purchasing, Pricing, and Quick Response in the Presence of Strategic Consumers*", *Management Science*, 55(3), 497-511 (2009).
- Coe, N. M., Dicken, P. & Hess, M., "*Global production networks: realizing the potential*", *Journal of Economic Geography*, 8, 271-295 (2008).
- Díaz, A., Álvarez, M. & González, P., *Logística inversa y medio ambiente*, Madrid: McGraw Hill (2004).
- Dornier, P.P., Ernst, R., Fender, M. & Kouvelis, P., *Global Operations and Logistics. Text and cases*, New York: John Wiley & Sons, Inc (1998).
- García, M. J., Hernández, J. G. & Hernández, G. J., "*Una Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones (MIASAD)*", In J. Valderrama (Ed.), *Congreso Interamericano de Computación Aplicada a la Industria de Procesos CAIP'2011*, España: Universidad de Girona, 753-760 (2011).
- Gungor, A. & Gupta, S. M., "*Issues in environmental conscious manufacturing and product recovery: a survey*", *Computer & Industrial Engineering*, 36, 811-853 (1999).
- Hernández, J. G. & García, M. J., "*Modelo Estratégico, Táctico, Operativo con logística Inversa. Un Modelo Integrador Para Explicar La Logística Empresarial*", In J. Valderrama (Ed.), *Congreso Interamericano de Computación Aplicada a la Industria de Procesos CAIP'2009*, Chile: C. I. T., 821-826 (2009).
- Hernández R., J., García G., M. & Hernández G., G., "*Enterprise logistics, indicators and Physical distribution manager*", *Research in Logistics & Production*, 3(1), 5-20 (2013).
- Hess, M. & Rodrigue, J. P., "*Global production networks and the role of logistics and transportation*", *Growth and Change*, 37: 499-509 (2006).
- Ivanov, D., "*DIMA – A Research Methodology for Comprehensive Multi-Disciplinary Modelling of Production and Logistics Networks*", *International Journal of Production Research*, 47(5), 1153-1173 (2009).
- Karageorgos, A., Mehandjiev, N., Weichhart, G. & Hämmerle, A., "*Agent-based optimisation of logistics and production planning*", *Engineering Applications of Artificial Intelligence*, 16, 335-348 (2003).
- Lemoigne, W. & Dagnaes, L., "*Globalisation strategies and business organisation of a network of logistics service providers*", *International Journal of Physical Distribution & Logistics Management* 33(3), 209-228 (2003).

Puschmann, T. & Alt, R., "*Successful use of e-procurement in supply chains*", Supply Chain Management: An International Journal, 10(2), 122-133 (2005).

Rice Jr., J. B. & Hoppe, R. M., "*Three dimensions of supply network coordination: An introductory essay*", Working paper 9-3-02. USA: Network Master, MIT Center for Transportation Studies (2002).

MATERIAL AND NON – MATERIAL DETERMINANTS OF EUROPEAN YOUTH’S LIFE QUALITY

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ABSTRACT

The paper confronts chosen approaches to quality of life studies with recent changes in post-crisis socio-economic environment. The focus is on European Youth at verge of entry into adult life. Presented research is a preliminary study for “The Application of Artificial Intelligence Methods for Analyzing Material and Non-material Determinants of Life Satisfaction between Young People from Developing Countries” project. Identifying and grouping the determinants of their life satisfaction could result in elaborating an innovative approach, providing European Youth with a new perspective on their personal and professional development options and allowing them to achieve a decent level of life satisfaction.

INTRODUCTION

Developed Western economies have been recently witnessing the evolution of social tensions into mass movements. Anti – ACTA law demonstrations, Spanish *Indignados*, North American *Occupy Wall Street* or Polish *Oburzeni* proved that a growing number of young people often referred to as NEETs (*Not in Education, Employment or Training*) can destabilize existing economic models significantly. At the same time an important number of Youth from all over industrialized Western World cannot – or do not want – to discount the development opportunities offered them by former generations and existing education systems. Observers of this process adopt different perspectives on the issue, varying from judging Young People as spoiled, lazy or unproductive, towards presenting them as innocent victims of the almighty international financial crisis. Whatever the truth is, the author assumes that changing attitudes of European Youth already became a visible feature of Western countries’ reality. Together with the fact that mentioned groups of Youth became in their mass a noticeable force on the socio-economic scene, the entire problem of attitudes of young people in post-crisis economies seem to be worth studying.

Human life quality studies can occur in two dimensions. Researchers can search for determinants, measuring levels of quality of life of groups of people or even entire societies or those of individuals. Due to the immensity of the subject, author’s interests bend towards studying the quality of life of individuals, especially of European Youth. To be more precise, the research target group will be composed of young people from developing European countries at the verge of entry into their adult lives, facing decisions that will most possibly help them to achieve a satisfactory level of life or just the opposite – become obstacles on their path to happiness.

Another few words of explanation are due to define the *satisfactory level of life* notion. One could ask why not *optimal*? This choice results from author’s research on the sense of constant hunt for happiness. Bauman (2012) analyzes Rustin’s (2007) thoughts about this issue and finds out that “*On the track leading to happiness, there is no finish line*”. At the same time we can observe a constant pressure effectuated on young people by numerous environmental factors to be the most effective in every field of their activity, often without paying attention to material and non – material costs of these commitments. Meanwhile, there is no clear evidence that such an attitude results in achieving higher standards of quality of life, which is backed by Bauman’s (2012) findings. We could even tempt a slightly provocative, counterbalance statement, saying that instead of losing energy on endless enhancement of some future happiness, focusing on living the actual moment here and now would be way more rational. This somehow reflects basic economic logic of obtaining highest possible results at possibly lowest costs. Kofakowski (2009) supports this thesis by

summarizing his findings on the issue when discussing the idea that “*Happiness is just lack of misfortune*”, which – in its turn – could be accepted as a negative definition of happiness.

But how does the issue of human life quality contribute to International Economics or International Business science? Well, it seems rational to assume that any durable change in consumers’ minds should result in companies adapting their strategies, behaviors and products to actual tastes of their customers. The growing popularity of Corporate Social Responsibility practices in the strategies of companies could be a direct proof for the thesis that including non-material values into economic functioning of societies is a natural path of development for those already highly developed ones.

The presented paper reflects author’s search for a deeper understanding of mentioned socio-economic processes. It also tempts to search for a universal set of quality of life determinants that could form a complex model allowing each individual to choose from a specific set of material and non-material determinants those that will contribute to the highest possible level to his or her needs in personal development. In author’s opinion, to contribute to the service of humanity and society, the science of economics needs to refocus on individuals and their human values, incorporating material and non-material ones into one general scope.

CHOSEN APPROACHES TO HUMAN LIFE QUALITY

The concept of Quality of Human Life is usually perceived as an interesting field for research for scientists with medical background. An important number of publications about enhancing human life quality by curing maladies or lowering physical pain can be found. Although today it seems to be obvious, Thorwald (1957) observes that this belief is not older than 200 years. Past century of scientific research broadened Quality of Life (QoL) studies by psychological contexts. Economists seem started researching this issue even earlier. Already Smith’s Theory of Moral Sentiments, dating from 1759, included his rhetorical question “*What can be added to the happiness of a man who is in health, out of debt, and has a clear conscience?*” (Smith, 1759, p. 45). In past decades other dominants joined, just to mention sociology, ecology, sport sciences, biology, engineering or chemistry. At the same time, although the humanity seems to have a large toolbox necessary to improve the quality of life of individuals, it hardly ever uses the entity of available means.

Though, a question arises: if quality of life and happiness has been discussed and researched from so many different angles, why Western societies witness the dictate of happiness model based on money – related values? Aren’t there any other values? Do the existent models describe the reality precisely enough? Are they possible to be applied by non-professionals?

Traditionalist economic approaches to measuring quality of life often tend to put an equality symbol between income and human life quality. Incomprehensively, they have dominated the public discourse to the point, where one of the most important economic data when talking about country’s development level – and mentioned in first instance – is Gross Domestic Product or GDP per capita. Taken into account the vast amount of literature discussing the utility of GDP for QoL studies, there is no need of repeating well known arguments, although it is important to underline a purely economic, therefore limited character of this index. In their widely discussed report Stiglitz, Sen, Fitoussi (2009) recommend to adopt a different perspective on the issue by saying “*When evaluating material well – being, [one should] look at income and consumption rather than production*” (p. 12). Whereas material determinants of human life quality seem to bear an important influence on the matter in question, past global occurrences, namely the global financial crisis proved a growing need for more complex approaches.

The concept of widening categories of factors contributing to the quality of human life by non – material ones is not new. Stiglitz, Sen, Fitoussi (2009) mention that “[...] *the time is ripe for our measurement system to shift emphasis from measuring economic production to measuring people’s well-being*” (p. 12). When discussing the notion of happiness Alkire (2008) says that “*data on [people’s] emotional states are not limited to material means*” (p. 3). An important part of researchers until now active in purely economic areas became more favorable towards including non – material data into their studies, which became possible partly thanks to development of methods allowing to include empirical qualitative factors into statistical data sets by transforming them into quantitative ones. Methodology in question includes *inter alia* AHP and ANP methods (Analytic Hierarchy Process, Analytic Network Process), fuzzy logic, neural networks and other instruments based on Artificial Intelligence.

Șerban – Oprescu (2012) goes even further by stating that “*The complexity and dynamics of current social and economic phenomena determined a growing body of economists to ask for a renewal of economics methods and a repositioning to the current society problems. The defining element of this new theoretical approach should probably be its multi and interdisciplinary character. By accepting and using assumptions and explanations beyond the accepted limits of purely traditional economics, quality of life studies could open a path to the new social sciences*” (p. 79).

Taking into account an important number of approaches to QoL studies, some sort of classification into more general groups is necessary. Șerban – Oprescu (2012) proposes to divide them into three groups:

- 1) Purely economic approach inspired by consumer theory which is trying to provide some viable economic explanation to non – material aspects of life.
- 2) Utilitarian approach, where subjective well-being is derived from the utilitarian theory which aims to explain specific phenomena through individual subjectivity.
- 3) The capabilities approach inspired by Sen's theory that aims to assess the quality of life through objective indirect observations on the actions and status of a person (p. 86).

First of these approaches is based on the assumption that quality of life is directly linked with purchasing possibilities of an individual, who is rather referred to as a consumer. Alkire (2008) supports this thesis by saying that “*The most common resource measures by far are monetary indicators of income or consumption*” although “*Non-monetary resources may include a range of assets, as well as access to certain public services such as health, education, water, electricity, and roads*” (p. 2). Therefore a hypothesis, that our quality of life is a derivative from our economic status and consumption opportunities resulting from it can be formulated in frames of the purely economic approach. This attitude was predominant for Western QoL studies during most of the post-war period of prosperity and growth. It has highly influenced indexes used to measure the development level of societies – and therefore state policies. Accordingly to this logic, non-material determinants of human life quality are often graded as less relevant in relation to the material ones. In effect, there is a general belief that maximizing consumption is a logical way towards a happier life. Whereas it seems to be too much of a simplification, the purely economic, consumption-based approach provides some space for other than economic values in life, namely consumer’s freedom of choice, but limits them to goods and resources only. Sen (1989) summarizes this debate by saying that “*The value of the living standard lies in the living, and not in the possessing of commodities, which has derivative and varying relevance*” (p. 34).

The utilitarian approach can be generally understood as an evolution of the purely economic one by introducing the notion of “utility” as a predominant feature of goods and resources to be consumed. One can notice that the preferences and satisfaction of individuals and societies gain some importance here. Nevertheless they are still perceived just as a mean towards achieving a higher goal – maximizing consumption levels by pushing the income, technological or productive constraints upwards and therefore being able to increase the amounts of purchased sets of goods. An aware consumer would also tend to maximize the utility of resource allocation, money included, and focus his or her efforts on lowering the losses and lost opportunity costs coming from non-optimal or faulty consumer decisions. A higher level of quality of life is believed to be achieved by maximizing consumer’s individual utility. Recent studies point at broadening the utilitarian approach by other factors, such as social responsibility or business ethics (Burnes & By, 2012; Boboc, Dumitru & Stancu, 2009), but the overall idea of maximizing the utility of resources and therefore minimizing the externalities in their allocation remains the crucial goal of individual and institutional consumers in frames of the utilitarian approach to quality of life. Though, the problem of researching it by analyzing only the economic measures still remains. Stiglitz, Sen & Fitoussi (2009) call it the *subjective well-being* concept, which assumes that “*individuals [are] the best judges of their own conditions*” (p. 42). By adopting this point of view on the utilitarian approach, cited authors provide individuals with the right to pursue satisfaction and happiness as the ultimate goal of their existence.

In relation to both approaches presented above, the capabilities methodology provides a different view on the factors that determine the quality of human life. Sen (2008) describes it by introducing the notion of “*capabilities*”, which exhibit human freedom of choosing between various “*functionings*”, that – in their turn – are a combination of different sets of “*doings*” and “*beings*”. Saito (2003) explains the capabilities approach by saying that “*The capability approach makes two basis assertions: “(1) that the right perspective from which to judge a person’s well-being is functionings, and not necessarily mental attitudes such as utilities; (2) that, in judging from the perspective of functionings, we should not merely look at*

whether a person is enjoying the preferred alternative but whether a person actually has the choice of an alternative: freedom to choose“ (p. 26). Stiglitz, Sen & Fitoussi (2009) state that *“The foundations of the capability approach, which has strong roots in philosophical notions of social justice, reflect a focus on human ends and on respecting the individual’s ability to pursue and realize the goals that he or she values; a rejection of the economic model of individuals acting to maximize their self-interest heedless of relationships and emotions; an emphasis on the complementarities between various capabilities; and a recognition of human diversity, which draws attention to the role played by ethical principles in the design of the “good” society”* (p. 42). Therefore the capabilities approach is perceived as the first to expand the material determinants of quality of life by non-material factors, i.e. education accessibility, social status, personal needs and activities, health, freedom, active and passive political rights, relations with other people, environment’s quality, security and others (Nussbaum & Sen, 1993).

In author’s opinion all of the above approaches exhibit a limitation, which does not allow to see them as complex methods for enhancing the quality of life of individuals. This constraint comes from the fact, that they are implying the use of normative and objective evaluations of attitudes of concerned people. What could be seen as an advantage in case of research on the quality of life of the society, cannot be applied to individuals, because the only person who can judge the usefulness of a given attitude or approach is the individual in question. Therefore there is a need for a more complex approach, including all three above, enriching them by some extra values, too, but above all – providing space for individual assessment of relevance of particular factors, accordingly to the needs and preferences of the concerned person.

Measures and indicators applied to quality of life research are numerous and evolving in time. The first stage of this process was based on material factors. Non-material determinants have been taken into account in its second stage. Already Nissel (1970) noticed that *“economic progress must be measured, in part at least, in terms of social benefits and the fact that it is just as important to have good statistics on various aspects of social policy [than it is economic statistics]”* (after Hicks, 2012, p. 1). The presentation of the capabilities approach (Nussbaum & Sen, 1993) and their following developments pushed this process further on, but at the same time included mainly external factors, independent from and not directly related to the person in question. Alkire’s (2008) quote, saying that *“Although resources are [...] not an adequate space for assessing quality of life, indicators of resources – of time, of money, or of particular resources such as drinking water, electricity, and housing – are still highly relevant to quality of life measures”* (p. 3) shows her interest in non-material determinants external to the individual, but at the same time proves that second stage approaches do not cover a vast set of factors determining the individual life satisfaction. It would be unjust not to mention that the quoted author does notice most recent changes in QoL research.

Analyzing the subjective reception of well – being of individuals as a contribution to human life quality is not a brand new concept, but only recently started to attire growing researchers’ attention. Layard (2005) says that *“If we want to measure the quality of life, it must be based on how people feel”* (p. 113). Similar views can be found in the works of Blanchflower & Oswald (2004) and Frey & Stutzer (2002). Stiglitz, Sen & Fitoussi (2009) also follow this logic by dividing the quality of life measures into subjective (*“dimensions of quality of life and the objective factors shaping these dimensions; cognitive evaluations, positive affects and negative affects”*) and objective (*health, education, personal activities, political voice and governance, social connections, environmental conditions, personal insecurity and economic insecurity*). These authors give their attention to the importance of some cross – cutting issues in frames of adopted division (p. 43 – 59). Kahneman & Krüger (2006) propose a reverse approach by calculating their U – index, which *“measures the proportion of time an individual spends in an unpleasant state”* (p. 19). At the same time Diener & Suh (1997) are suggesting to analyze economic, social and subjective QoL measures altogether, which can be understood as opting for a complex approach to quality of life studies.

Taking the above into account, it is highly possible that QoL research recently entered its third phase which will focus on researching on people’s subjective reception of happiness. It would be useful to tempt to combine the findings of the three stages of research into one complex model, including all the factors relevant to the quality of life, together with their subjective ranking and generalization on larger groups of individuals and societies.

MEASURING THE QUALITY OF LIFE OF YOUNG EUROPEANS

The infinite choice of subjective measures and indicators used in QoL research can provide scientists with serious headache. Nevertheless, attempts of downsizing their number to a smaller scale do happen. The question arises which are those to be omitted or what grades should be attributed to remaining ones. For the needs of the presented research the author will adopt Alkire's (2008) concept: "*Any approach to quality of life may wish to select the space in which to measure quality of life. Of course indicators may be used from different spaces, but a conceptually coherent approach should be able to explain why particular indicators have been chosen*" (p. 2). In authors opinion this coherence can be reached by understanding the nature of the quality of life.

Modern approaches show that measuring the quality of human life is directly linked to subjective reception of individual level of happiness. After studying classical thinkers Tatarkiewicz (1962) proposes four definitions of happiness:

- a propitious coincidence;
- a positive experience;
- maximization of amount of owned goods;
- overall life satisfaction expressed at its dusk.

The philosopher also underlines that because of its complexity, the real nature of happiness can be fully expressed only by the last definition. It is important to add that in Tatarkiewicz's opinion the notion of *owned goods* relates not only to material possessions, but also to non-material values, such as emotional states allowing to deal with stress and difficulties and to enjoy everyday life. (p. 15 – 29). Last, but not least, even this renowned philosopher does not attempt to provide the readers with a comprehensive definition of happiness, because of its individualized nature. He only states that "*Happiness is an abiding, full and justified contentment of life. Or: it is a life providing with an abiding, full and justified contentment. There are two definitions, because happiness is a reversible phenomenon*" (*ibidem*, p. 40).

Author's research lead in frames of the "*Socio – Economic Implications of Global Financial Crisis for European Youth*" project (Gawlik et al., 2012) between 31 Croatian, German, Polish and Slovak students, who with no doubt belong to the "European Youth" target group, showed that young people at the verge of their entry into adult life and professional careers experience a series of difficulties coming both from material and non-material determinants of their future effectiveness and awaited life success. The following paragraphs will present findings from this study. At the same time relevant QoL determinants will be extracted and allocated in one of mentioned factor groups.

The respondents mentioned a broad set of factors determining young people's life quality. The questions have been answered in open form (written essays, discussions and direct interviews). The respondents' concerns have been divided into material and non-material factors that have influence on their life quality. Material factors countered following issues:

- low expectation of future salary level;
- burden of student's loans – they have to be paid back even if there is no work after studies;
- investment risk that follows self – employment;
- rising costs of living accompanied by decreasing salaries;
- incertitude of financial investments – coming from low level of trust to the financial sector caused by its attitude and condition during and after the crisis;
- trouble with saving money for the future;
- low level of retirement pensions (if available).

Non – material factors could be divided into:

- Fears resulting from:
 - little availability of jobs;
 - low stability of jobs;
 - underqualified posts;
 - not being able to combine private and professional life;
 - general fear of the future.
- Inconvenience resulting from:
 - need for constant mobility;
 - need for networking (to know "the right people");
 - separation with family and friends;
 - working at uninteresting positions;
 - working for inadequate salaries;

- information overload;
- uncertainty about the relevance of one's occupation to the society.
- Disappointments coming from:
 - low importance of students' University performance;
 - incompatibility between education and labor market;
 - escapist attitudes - maintain educational fiction in order to push away the moment of entry into adult life to the limit (Gawlik & Kopeć, 2012).

Although the material factors do not seem to be a very innovative discovery, the set of non-material ones provides food for thought. What attires attention at first glance is that many of them are related with emotions – fear, inconvenience or disappointment. Another point is that even if the respondents mentioned them only after the material ones, they still did rank them as relevant or even crucial, when it comes to their influence on the quality of their lives. The presented study shows preliminary findings of research based on European Youth's experience and definitely has to become a subject for further, deeper and wider data collection and analysis.

CONCLUSION – DIRECTIONS OF FURTHER RESEARCH

As the nature of an important part of European Youth's concerns about their future quality of life consists of emotional factors that are subjective to each individual and therefore cannot be easily generalized, the application of artificial intelligence methods seems to be promising for further research. The reason for such a try is the need for combining the actually used descriptive measures and available indexes into one complex model that should include both qualitative and quantitative determinants. Because of their nature, based on human – type reasoning, neural networks and / or fuzzy logic processes could become a proper tool for such research, due to their similarity with human decision making – the core of the process itself is less important than the interrelations between various input and output data sets.

The main thesis of future research could possibly state that “A satisfactory level of life quality can be achieved by finding a proper balance between material and non – material determinants of life satisfaction.” Additional sub – theses should be checked. They could be formulated in the following way:

1. The choice of possible life patterns is a limited number.
2. A proper balance between private and professional life results in lower general costs of achieving higher levels of life satisfaction.
3. A higher level of decision making consciousness at the beginning of professional development results in a higher probability of final success.
4. Artificial intelligence methods, in example neural networks and fuzzy logic are a proper tool for proposed research, analysis and elaboration of scientifically aided decision – making models to enhance success when undertaking important life choices.

The research should also provide action strategies for young people that are interested in enhancing their life satisfaction in a longer scope. Findings from mentioned initial research showed at least four possible options:

1. Direct adaptation to the actual socio – economic system – full acceptance of the actual state of arts and efforts to fit into it to the highest degree.
2. Focusing on professional development – through education, experience and training.
3. Focusing on individual personal development – enhancing self – awareness and consciousness.
4. Alienation – living aside the society, without taking part in its mainstream (Gawlik & Kopeć, 2012).

Of course plenty of questions arise. Is this set a closed one? Which of these strategies provide European Youth with most possibilities of succeeding to have a decent quality of life? Or may it be a combination of all of them? At which proportions?

Although gaining the general ability of adapting to turbulent environment seems to be the proper answer to these questions, the real problem is how to do it? As it appears to be highly biased by individual preferences, further research should concentrate on providing young people with help when making strategic decisions about themselves. Tatarkiewicz's (1962) “*full and justified contentment of life*” can be achieved

only by a conscious choice of paths leading towards wanted happiness. At the verge of Youth's entry into professional and adult lives every mistake would highly influence their future performance and therefore contribute to their final success or failure when fighting for an acceptable quality of life.

REFERENCES

- Alkire, S. (2008). The Capability Approach to the Quality of Life. Working Paper of the Working Group "Quality of Life". Paris: Commission on the Measurement of Economic Performance and Social Progress.
- Bauman, Z. (2009). *Sztuka Życia (The Art of Life)*. Kraków: Wydawnictwo Literackie.
- Blanchflower, D. & Oswald, A. J. (2004). Well - Being Over Time in Britain and the United States. *Journal of Public Economics*, Vol. 88, 1359 – 1386.
- Boboc S., Dumitru I. & Stancu, A. (2009). Assuming Social Responsibility by Companies through the Exchanges They Perform: A Stakeholders Approach. *Transformations in Business & Economics*, 8(3), 77 – 92.
- Burnes, B. & By, R.T. (2012). Leadership and Change: The Case for Greater Ethical Clarity, *Journal of Business Ethics*, Vol. 108, Iss. 2, 239 – 252.
- Costanzo, G., Pittnerová, J., Vasiliadis, K., König, K., Maselek, M., Krnetić, M., Brundiek, M., Hense, S., Ladović, S., Jurčević, V. et al, Gawlik, R. & Kopeć, M. (eds.) (2012). Socio – Economic Implications of Global Economic Crises for European Youth. Summary Brochure. EU DG Education and Culture, Erasmus Lifelong Learning Programme, Intensive Programme 2012. ERA/2012/IP/W/0045. Kraków: Cracow University of Economics.
- Diener, E. Suh, E. (1997). Measuring Quality of Life - Economic, Social, and Subjective Indicators. *Social Indicators Research*, Vol. 40, Oslo: Kluwer Academic Publishers. 189 – 216.
- Frey, B. & Stutzer, A. (2002). What Can Economists Learn from Happiness Research?, *Journal of Economic Literature*, Vol. 40, No. 2, 402 – 435.
- Kahneman, D. & Krüger, A. B. (2006). Developments in the Measurement of Subjective Well – Being. *Journal of Economic Perspectives*, Vol. 20, No. 1, 3 – 24.
- Kořakowski, L. (2009). Czy Pan Bóg jest szczęśliwy i inne pytania. Kraków: Wydawnictwo Znak.
- Layard, R. (2005). *Happiness: Lessons from a New Science*. London: Penguin Books.
- Nissel, M. (ed.) (1970). *Social Trends*, No. 1. London: Central Statistics Office, Her Majesty's Stationary Office.
- Nussbaum, M. & Sen, A. (eds.) (1993). *The Quality of Life: Wider Studies in Development Economics*. Oxford: Clarendon Press.
- Rustin, M. (2007). What's Wrong with Happiness? *Soundings*, Summer 2007, Iss. 36, 67 – 84.
- Saito, M. (2003). Amartya Sen's Capability Approach to Education: A Critical Exploration. *Journal of Philosophy of Education*, Vol. 1, 17 – 33.
- Sen, A. (2008). The Economics of Happiness and Capability. Bruni, L., Comim, F. & Pugno, M. (eds.), *Capability and Happiness*. New York, NY: Oxford University Press.
- Sen, A. & Hawthorn, G. (ed.) (1989). *The Standard of Living*. Tanner Lectures in Human Values. Cambridge: Cambridge University Press.
- Smith, A. (1759). *The Theory of Moral Sentiments*, Glasgow Edition. Edinburgh: A. Millar, in the Strand; & A. Kincaid & J. Bell.
- Stiglitz, J., Sen, A., Fitoussi, J-P. (eds.) (2009). Report by the Commission on the Measurement of Economic Performance and Social Progress, Paris: CMEPSP.

Șerban – Oprescu, G. (2012). Economic Approaches to Sustainability and Quality of Life. An Epistemological Study. *The Romanian Economic Journal*, December 2012, Year XV, No. 46 bis, 79 – 96.

Tatarkiewicz, W. (1962). *O szczęściu (About Happiness)*, Warszawa: Państwowe Wydawnictwo Naukowe.

Tinkler, L., Hicks, S. (2011), *Measuring Subjective Well-being*. London: Office for National Statistics.

Thorwald, J. (1957). *The Century of the Surgeon*. New York, NY: Pantheon Books.

SOCIAL MEDIA ENGAGEMENT AND EFFECTIVENESS ON BRANDING: A THEORETICAL ORIENTATION

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ABSTRACT

The internet has undoubtedly revolutionized not only the way brands communicate with consumers, but also the way consumers share brand-related information with others: providing new opportunities and representing new threats. The swiftness of modern communication has made it possible to connect in real-time with anyone, regardless of geographic location. A combination of newly achieved instant connectivity and evolving social media platforms, has allowed information to be delivered much faster than through traditional marketing channels, such as television, radio and press, affecting business processes and increasing consumers share of voice. Brand development and reputation are perceived to be one of the most influenced business areas, since many branding activities and brand-related conversations have been transferred on-line through use of social media tools and applications. Based on such observations, this paper investigates the impact of social media on brand perceptions.

INTRODUCTION

Social media (SM) has become an inalienable part of modern life. Geographic location is no longer an obstacle to global connectivity and the communicational time-frame has shifted towards real-time, providing an opportunity for instant information sharing. Consequently, business rules in a new shared-experience world have changed, as attempts to adapt to emerging opportunities and threats increase. Companies today need to integrate their webpresences with the rest of their brand attributes as part of an overall positioning strategy and at the same time control brand reputation, today's consumers have impact on brand equity like never before (Ozuem et al 2008; Booth and Matic 2011; Dann and Dann, 2011). This can be challenging considering the lack of social media expertise in many organisations and the lightning speed of technological development that does not allow for the same marketing techniques to be used twice, but requires continual transformation of such techniques. Thus, the rapid speed of social media development makes any assessment of its influence on various branding areas tricky, as new SM tools appear before old ones have been evaluated. These issues are particularly relevant for small organisations that have limited marketing budgets and cannot afford on-going employee education (Clow and Baack, 2012). At the same time these organisations can benefit from the web revolution the most. Not only can they survive without off-line shopping but they can survive without the use of advertising agencies by using SM channels to reach targeted customers direct. Therefore, understanding how SM influences the process of brand development is crucial for any business today and specifically for small e-commerce companies.

What lies within social media?

The volume of research devoted to SM growth and place in modern life is significant. However branding-related academic literature is dominated by theoretical frameworks that seldom consider SM phenomenon and web 2.0 maturities. One of the main issues faced by scholars is the absence of a recognised unified definition of what SM is. According to Bradley (2010) "SM is a set of technologies and channels targeted at forming and enabling a potentially massive community of participants to productively collaborate". Corresponding with this opinion is work by Scott and Peter (2010) where they define SM as "a set of web-based broadcast technologies that enable the democratization of content, giving people the ability to achieve massive scalability in real time, these technologies empower people to connect with each other to create value through online conversation and collaboration" (Scott and Peter, 2010, p.5).

The definition provided by Kaplan and Haenlein (2010) is a useful attempt to identify and integrate all SM components. They believe that SM is “a group of internet-based applications that build on the ideological and technological foundations of web 2.0, and that allow the creation and exchange of user generated content” (Kaplan and Haenlein, 2010, p.60). Another important aspect of Kaplan’s and Haenlein’s (2010) work is the development classification of SM types. These include social networking sites (Facebook and LinkedIn), collaborative projects (Wikipedia), blogs, content communities (YouTube and Daily Motion), virtual game worlds (Habbo Hotel), and virtual social worlds (Second life and World of Warcraft). Micro-blogging social network Twitter has not been classified in any of the highlighted groups since it is a single example of a merger between two SM types. However due to the rapid growth of 500,000 new members daily, Twitter is one of the most important and promising channels of SM (Raby, 2010).

According to Chaffey and Smith (2008) one of the main reasons that SM has been largely incorporated into modern life and, as a result, into business practices is that the web 2.0 concept has increased in prominence due to the evolution of technologies and communication techniques that have become somewhat of a “mainstream marketing approach”. The acceptance of SM by consumers has complimented the basis for the SM spread (Chaffey and Smith, 2008). Although new SM types are emerging with ever-increasing speed SM marketing has not yet matured. Data overload and lack of insightful SM web metrics are the biggest limitations of SM adoption by organisations. In terms of SM, marketers are forced to stretch their imaginations to create new engaging ways to achieve organisational objectives. SM provides an effective social platform for any type of organisation, regardless of its size. Whereas not everyone can see SM as a marketing tool and an essential part of the integrated marketing mix, most companies which recognise where the future of the web lies embrace SM in their marketing strategies (Tsai, 2009). Successful brands use SM to battle global recession. The number of big brands that have successfully implemented SM, include: Starbucks and their “Starbucks idea” to gather customer suggestions that are subsequently voted for by other users and Sun Microsystems through company CEO Jonathan Schwartz’s blog on corporate strategy and NPD. Bill Marriott and the Marriott International hotel chain produce a blog authored by the company’s chairman and CEO to share stories and photos from his stays in Marriott hotels all over the world while on vacation (Kaplan and Haenlein, 2010).

Social networking sites (SNS) are the most popular SM type in the UK. Already in June 2010 UK internet users made more visits to social networks than to search engines and in the USA SNS account for 15% of all internet visits made last year (WebCertain, 2010; Giamanco and Gregoire, 2012). However, in the corporate world, SNS are surrounded by controversial conversations and articles that attempt to justify business value. Chaffey et al (2009) define SNS as “a site that facilitates peer-to-peer communication within a group or between individuals through providing facilities to develop user generated content and to exchange messages and comments between different users” (Chaffey et al., 2009, p.112). The impact of SNS on media consumption cannot be overestimated due to impressive growth rates combined with large growth potential.

The main player in the SNS arena in the UK is Facebook that is reaching the one billion mark globally, meaning that it includes 14% of the world’s population. In the UK alone according to the research conducted by UMPF (2011) Facebook has 37.4 million regular users. Other heavyweights in this category include Twitter that a year ago already had 200 million registered members and LinkedIn, the most professionally orientated of the major sites (Giamanco and Gregoire, 2012). Scott and Peter (2010) have defined LinkedIn as a social network that “enables professional colleagues to connect and collaborate together and in groups” (Scott and Peter, 2010, p.15). Although LinkedIn was created earlier than other major SNS sites it took a long time for this website to gain momentum. However, in 2010 it claimed to have more than 50 million users and in 2011 it had registered its 100 millionth member, adding a million new users each week. Other dominant SM websites in the UK market are YouTube, Google with its 90% market share, Wikipedia which contains over 14 million articles and Google + that has passed 65 million last year (Hird, 2010; WebCertain, 2010; Giamanco and Gregoire, 2012).

Towards branding in social media

Branding is a research area that has been studied for centuries and its relationship to other disciplines has been discussed widely. A brand, in its widest sense helps to distinguish the products and services of one organisation from another. Kotler *et al* (1999) define the brand as “a name, term, sign, symbol or design, or a combination of these that identifies the goods or services of one seller or group of sellers and differentiates them from the competition.” However it is important to note that practitioners often think of a brand in

relation to the level of awareness created amongst the targeted customers. Brand perceptions and brand image are other associations that reflect a brand in the consumer minds. According to Blythe (2006) branding is a “culmination of a range of activities across the whole marketing mix leading to a brand image that conveys a whole set of messages to the consumer about quality, price expected performance and status” (p.89).

The most frequently-discussed question in academic literature is why it is important to develop a strong brand. For example, Keller (2003) suggests that one of the main reasons why brand development is essential for corporate existence is that the brand helps consumers to identify product sources and assigns responsibility to a specific producer or distributor. He also highlights that through different types of experiences with a brand customers learn what it represents. Consequently, they create attitudes and perceptions as to whether a specific brand can satisfy their needs. Once consumers are able to recognise the brand after some exposure to it, any additional need for information during the decision-making process is diminished. Brand development includes building customer-brand relationships to earn loyalty, if what a brand stands for is communicated with consistency (Keller, 2003).

Keller (2003) suggests that since a brand is something that “resides in the minds of consumers” it needs to be placed in these minds. A brand should be treated as a perceptual entity that has its roots in reality. To develop a brand involves teaching consumers and structuring their brand knowledge by using a set of brand elements including brand name and meaning, so that they can identify and differentiate the brand within the product category (Keller, 2003). To create a strong brand, an accompanying marketing strategy must be developed and implemented. The concept of brand equity is one of the leading brand-related marketing theories that sheds light on how intangible brand assets can outweigh tangible assets. An initial definition provided by Farquhar (1998) determines brand equity as “an added value to the firm, the trade, or the consumer with which a given brand endows a product”. Probably the most well-known definition is the one provided by Aaker (1991), who believes that brand equity is a set of brand assets and liabilities linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service to a company and to that company’s customer. Understanding brand equity is essential when discussing the process of brand creation.

The factors that form brand equity are debated in academia and a number of researchers suggest that they include social image, value, performance, trustworthiness and attachment (Lassar et al., 1995). Brand loyalty, brand awareness, brand associations and perceived quality are among other concepts representing brand equity (Aaker and Joachimsthaler, 2000). Aaker (1996) emphasises that brand identity includes a unique set of associations to characterise a brand promise and is of particular importance when building brand equity. He defines brand identity as number of dimensions organized around brand-as-product, brand-as-organisation, brand-as-person and brand-as-symbol.

Perhaps one of the best models that can be used to understand brand equity from a consumer’s point of view is Keller’s customer-based brand equity (CBBE) model (2003). It helps to identify how the consumer’s brand knowledge influences the way they react to marketing activity. The CBBE model is based on the belief that “the power of a brand lies in what resides in the minds of customers” (Keller, 2003, p.59). Customers build a network of brand associations as a result of brand experiences. The aim of the marketer is to ensure that customers develop desired brand attitudes, perceptions and beliefs. Keller (2003) defines CBBE as a difference in the impact that the identification of a specific brand by the customer has on their acceptance of branded products and marketing activities. A brand is believed to have a positive CBBE if consumers respond better to its offerings and marketing communications once a brand is defined. A negative CBBE means that brand identification results in a less favourable consumer response towards brand activities (Keller, 2003). Thus, by changing unfavourable brand attitudes and perceptions towards desirable ones, CBBE can be increased.

Social media and brand relationships

The volume of academic literature that looks into relationships between SM and branding is considerably less than the volume of overall materials about SM. Additionally, scholars that have pointed this out have expressed different opinions. Since the growth of SM has shifted power into the hands of consumers, the opinion that branding has become irrelevant has grown in popularity (Barwise and Meehan, 2010). However, Barwise and Meehan (2010) highlight that rapid SM development has made it more important “to get the basics right”. The consistent delivery of brand promise and creation of a strong brand have proven to be

essential in modern times, when the wide coverage and speed of SM can transform small mistakes into disasters via a rapid snowballing of reputation loss. The estimation of risks related to social media use has become a necessary part of brand development, - because today brand ownership belongs to consumers as much to brands themselves. Therefore consumer brand perceptions have the ability to influence brand reputation and equity more than ever (Booth and Matic, 2011). Manwaring (2011) advocates that social media is evolving far beyond being “just a new marketing and branding tool” and is a driving force for large-scale global transformation, led by socially, politically, and religiously conscious consumers seeking to voice their opinions and use their purchasing power to halt unsustainable business practices. While social media can positively contribute to brand equity and revenue, in the short-term it might even be harmful (O’Brien, 2011). According to Barwise and Meehan (2010), social media imposes threats for brand development in terms of difficulties with keeping up with the pace of innovation and possibilities of getting distracted by SM leading to a lack of strategic direction. To avoid this, organisations need to create a new type of brand manager – ringmasters; integrated thinkers with good digital skills (Spenner, 2010). Another risk related to SM is the potential harm of brand image due to Internet attacks from dissatisfied SM users who have a large variety of tools to enable a multiplying effect and high level of reach. Gaines-Ross (2010) suggests that corporate reputation warfare (the ability to respond effectively to SM attacks) is crucial to a modern organisation. Such warfare is defined by SM training and the creation of networks consisting of independent third parties willing to support a brand in times of attacks (Gaines-Ross, 2010). Additionally, there are a number of less obvious risks that can be controlled via AM police applications. For instance, according to Deloitte’s Ethics and Workplace Survey (2009), employee self-expression through social networks is perceived to be a trigger of reputational risk by more than half of corporate executives (Scott and Peter, 2010). Many modern managers monitor SM behaviour of their employees for purposes of damage control. Inappropriate posts, false representations, unguarded disclosures, copywriting violations or simply grammar mistakes can negatively influence brand reputation. To reduce such risks online communication training should be provided (Giamanco and Gregoire, 2012).

The main opportunity that SM can bring to a brand is identified by Scott and Peter (2010) as the value of SM which lies in relationships built via an open dialogue, - rather than through a controlled monologue. Where before the main aim was simply to deliver message, now it is to initiate a conversation, since the starting point has shifted towards the consumer (Li and Bernoff, 2011). Consequently, SM provides an opportunity to connect in fundamentally different ways, which are beyond the control of manufacturers and retail stakeholders. This has created a new base for brand-consumer communication (Edelman, 2010). If in the nineteenth century a brand emerged as a way of identifying producers, in the twenty-first century it has become a symbol of the relationship between organisations and consumers (Leimeister et al., 2006). “Brand democratisation” means that organisations are becoming facilitators of conversations where consumers are brand’s storytellers, instead of controllers of these conversations (Booth and Matic, 2011). This has been catalysed by the Internet information exchange capability (Neisser, 2006). Online users have identified new possibilities for research, transmission and manipulation of any organisational messages. Members of online communities formed on social networks can share information and influence other members. Highly involved SM participants and contributors became “customer-infomediaries” and co-producers of brand information (Barnatt, 1998; Shao, 2009). Forum members have expert influence over the corporate brand (Baglieri and Consoli, 2009). In return, organisations must enhance the value of online users who originate on-line word-of-mouth via reward systems. Peer-recognition is a powerful motivational tool to be used as part of SM brand development process (Zeisser, 2010).

It has to be noted that the topic of online communities is one of the most discussed in the field of modern academic research. According to Leimeister, *et. al* (2006, p.281) “a virtual community consists of people who interact together socially on a technical platform”. Virtual communities positively influence brand development and brand loyalty amongst community members increases as a result of social and emotional bonds creation. An online community is unique, since it provides a comfortable environment for expressing opinions, learning brand information, building relationships and maintaining network of connections amongst participants (Leimeister et al., 2006). Morgan (cited in Sheth and Pervatiyar 2002) suggests that relationships formed in online communities are based on social bonds and not easily copied by competitors. Therefore they can become a sustainable competitive brand advantage. A sense of community can be strengthened when contributors receive positive reinforcements by receiving comments from other network participants leading to the establishment of concrete community relationships (Joyce and Kraut, 2006). As online communities grow in size, number, and character, marketers are becoming more aware of the value of on-line word-of-mouth and its importance for brand attitudes and perceptions (Bughin et al., 2010). Additionally, Leimeister et al., 2006, Nielsen, 2009 and Barwise and Meehan, 2010 suggest that relationships built on social networks can be a powerful tool of brand enhancement. Consequently, many

marketing and consumer-behaviour commentators believe that online communities enable collaboration between brands and their most loyal consumers to co-produce linking value for the brand, as over time an increasing number of people join online social conversations that can noticeably affect any brand's reputation and equity (Cova and Cova, 2002; Booth and Matic, 2011). This linking value represents a surplus that belongs to brands that have developed a community of enthusiast consumers, as opposed to those who have not (Cova and White, 2010). It is important to highlight that Web 2.0 technologies significantly empower consumers that belong to communities in their relationships with companies that manage their favourite brands (Uncles, 2008). This has led customers not only to collaborate with those companies, but also to produce their own interpretations of meaning and strategy associated with the brands that they prefer (Wipperfurth, 2005).

As Aaker and Smith (2010) suggest, SM characteristics can lead to a "Dragonfly Effect", based on a ripple effect that sees a single action leads to a major result, if the multiplier occurs as a result of emotion sharing. This can be used as an effective tool of brand-building activities that are aimed at raising brand awareness or changing brand attitudes. Transmitting emotions via particular brand messages on SM helps to reach a large number of people in a relatively short time and leads to an emotional contagion phenomenon. Consequently, it increases the spread of positive feelings towards the brand (Aaker and Smith, 2010). An opinion that SM has a strong impact on brand awareness, trial and sales is widely shared by researchers.

In terms of other SM-related business opportunities, Barwise and Meehan (2010) highlight the SM role as a very insightful consumer research tool. This underlines a shift in the marketplace which has resulted from the growth of the SM phenomenon. Emphasis has moved from traditional product-orientated market research towards ethnographic research to discover the role brands play in consumer lives. It has been evident that SM has significantly widened consumer research opportunities, - and therefore must be used in a process of brand development (Barwise and Meehan, 2010). Another SM-related opportunity is its impact on the innovation process. The involvement of product users into the product development process has transformed it (McAfee, 2009). Barwise and Meehan (2010) support this opinion by suggesting that SM tools can significantly enhance customer engagement and collaboration in a varied number of ways and product development is one of these. According to McAfee (2009) many companies nowadays allow everyone to bring different ideas from trademarks to engineering and also encourage consumers to participate by establishing rewarding systems. In addition, enterprise 2.0 tools are designed to help with these more open innovation processes and provide an opportunity to gather ideas on a global scale.

Aral and Walker (2011) noted that as everything goes viral, the products that have viral features closely related to the SM tools are likely to be subject to quicker market adoption. Integration with these tools improves interactivity of the company's offerings. By simply adding a "share" button, peer-to-peer influences over the product purchase can be increased by 400% (Aral and Walker, 2011). As a final part of this paper the "Long Tail Theory" deserves attention. According to Anderson (2004) there is a potential amongst products that are not big "hits" or "blockbusters". They can bring a significant profit if sold to the right audience since the internet allows for a reduction of storage costs leading to fewer cost constraints. The distribution costs of goods that can be sold in a digital format are much lower than for physical goods resulting in a longer "tail" (Anderson, 2004). In his article Anderson (2004) suggests that obscure products will erode a large part of the share that traditionally belonged to a relatively small number of popular products.

In her later article "Should you invest in Long Tail?" Elberse (2008) points out that even though it cannot be denied that wide-spread e-commerce has extended consumers access to product ranges, companies should not completely turn away from making profit on hits and focusing on demand for obscure products. Elberse (2008) highlights that it is not easy to make a profit from the tail and that companies still make most of their money from a relatively small number of hits that are in greater demand. Her research has also identified that the most frequent customers are buying hits and purchasing from the tail, therefore it makes sense to offer both types of products (Elberse, 2008).

CONCLUSION AND FURTHER RESEARCH

With dramatic increases of the intensity of SM use by consumers all over the globe no brand can afford not to be represented on various SM channels. Since SM tools are changing the way consumers view and relate to brands by organising large brand communities marketers must aim at creating a sense of belonging inside these communities. In spite of the fact that SM has shifted the boundaries and became a trigger and platform

for new marketing strategies, one of the main challenges faced today by marketers is the creation of the ideal mix between traditional marketing methods and newly discovered consumer touchpoints. Additionally, such a traditional part of the overall marketing strategy benefits from the possibility of appreciating new customer perspectives, for example through access to real-time data. Moreover, as customers are becoming more reachable and visible, customer profiling and targeting must become more precise and efficient.

It is worth mentioning that with consideration of the Long Tail Theory, business owners and marketers might want to reconsider their product range. Following this theory, products do not need to be popular amongst other customer segments if they satisfy needs of the chosen niche. Also it means that although some of the items are not major hits, they still attract some customers that would not be attracted otherwise and together they yield more profit than a small number of popular items. Consequently, such companies are advised to concentrate on the creation of less-popular items just as much as on the popular ones. To sum up, this paper has covered theoretical perspectives of the impact of SM on brand perception. Further research directions might include a deeper investigation of communities as specific networks within SM networks to research their characteristics and roles for both brands and consumers. Especially, influence of opinion leaders within these communities on brand perception must be investigated. A number of authors, for example, Cova and White (2010) and Leimeister *et al* (2006) had a look at the role of virtual communities. However, the perspective of communities as networks within networks and the importance of opinion leaders in the level of brand conversations remain to be investigated.

REFERENCES

- Aaker, (1991), *Managing Brand Equity: Capitalizing on the Value of a Brand Name*, New York : The Free Press.
- Aaker, J. and Smith, A. (2010), *The dragonfly effect: quick, effective, and powerful ways to use social media to drive social change*. San Francisco: Jossey-Bass A Wiley Imprint.
- Aaker, D. (1996), *Building Strong Brands*, New York: Three Press.
- Aaker, D., Joachimsthaler, E. (2000), *Brand Leadership*, London: the Free Press.
- Anderson, C. (2004) "The Long Tail", *Wired*, V. 12. N. 10, pp. 170-177.
- Aral, S. and Walker, D. (2011), "Forget Viral Marketing-make the Product Itself Viral", *Harvard Business Review*, Vol.89.N. 6, pp. 34-35.
- Baglieri, D. and Consoli, R. (2009), "Collaborative innovation in tourism: managing virtual communities", *TQM Journal*, Vol. 21.N.4, pp.-353-64.
- Barnatt, C. (1998), "Virtual communities and financial services-online business potentials and strategic choice", *International Journal of Bank Marketing*, Vol.16.N.4, pp.161-9.
- Barwise, P. and Meehan, S. (2010), "The one thing You must Get Right When building a brand", *Harvard Business Review*, Vol.88. N.12, pp. 80-84.
- Blythe, J. (2006), *Principles and Practice of Marketing*. London: Thompson Learning.
- Booth, N. and Matic, J. (2011), "Mapping and leveraging influencers in social media to shape corporate brand perceptions". *Corporate Communications*, Vol. 16. N.3, pp. 184-191.
- Chaffey, D. and Smith, P. (2008), *eMarketing Excellence*. Oxford: Butterworth-Heinemann, Elsevier.
- Cova, B. and Cova, V. (2002). "Tribal marketing: The tribalisation of society and its impact on the conduct of marketing". *European Journal of Marketing*, Vol.36. N.5-6, pp. 595-620.
- Cova, B. and White, T. (2010). "Counter-brand and alter-brand communities: the impact of Web 2.0 on tribal marketing approaches". *Journal of Marketing Management*. Vol. 26. N. 3-4, pp. 256-270

- Edelman, D.C. (2010), "Branding in the Digital Age", *Harvard Business Review*, Vol.88. N. 12, pp. 62-69.
- Elberse, A. (2008), "Should You Invest in the Long Tail?", *Harvard Business Review*, Vol.86. N 7/8, pp. 88-96.
- Farquhar, P. (1989), "Managing brand equity", *Marketing Research*, Vol.1 N. 3, pp.24-33.
- Gaines-Ross, L.(2010), "Reputation Warfare", *Harvard Business Review*, Vol. 88 N. 12, pp. 70-76.
- Giamanco, B. and Gregoire,K.(2012)" Tweet me, Friend me, Make me Buy"*Harvard Business Review*, Vol. 90 N. 7/8, pp. 88-93.
- Joyce, E.andKraunt, R. (2006), "Predicting continued participation in newsgroups", *Journal of Computer mediated Communication*. Vol. 11. N. 3, pp. 723-747.
- Kabani, S. and Brogan, C. (2010), *The Zen of Social Media Marketing: An Easier Way to Build Credibility, Generate Buzz and Increase Revenue*. Dallas: Benbella books, Inc.
- Kaplan, A.M. and Haenlein, M. (2010), "Users of the world, unite! The challenges and opportunities of Social Media", *Business Horizons*, Vol. 53. N. 1, pp. 59-68.
- Keller, K. (2003), *Building, Measuring, and Managing Brand Equity*. 2nded. New Jersey: Pearson education International.
- Kirkpatrick, D. (2010), *The Facebook effect*. Croydon: Virgin Books.
- Kotler, P., Armstrong, G., Saunders, J. and Wong, V. (1999), *Principles of Marketing*.FT Prentice Hall.
- Kotler, P. and Keller, K. (2006), *Marketing Management*. 12th ed. New Jersey Pearson Education, Inc.
- Lassar, W., Mittal, B., Sharma, A. (1995), "Measuring customer-based brand equity", *Journal of Consumer Marketing*, Vol.12 N4, pp.11-19.
- Leimeister, J.M., Sidiras, P. and Krcmar, H. (2006,) "Exploring success factors of virtual communities: the perspective of member and operators", *Journal of Organisational Computing and Electronic Commerce*, Vol.16, N.3/4, pp.279-300.
- Li, C. and Bernoff, J.(2008),*Groundswell:Winning in a World of Transformation by Social Technologies*. Cambridge: Harvard Business Press.
- Li, C and Bernoff, J. (2011), *Groundswell*.Cambridge: Harvard Business Press.
- McAfee, A.(2009)" How a Connected Workforce Innovates", *Harvard Business Review*,Vol. 87. N. 12, pp. 80-80.
- Niesser, D. (2006), "The tidal wave of brand democratization", *Admap*, Vol.41.N.478, pp.40-41.
- O'Brien, C.(2011). "The Emergence Of The Social Media Empowered Consumer", *Irish Marketing Review*, Vol. 21. N. 1/2, pp. 32-40.
- Scott, A. and Peter, R. (2011), *Auditing Social Media*. New Jersey: Wiley&Sons, Inc.
- Sheth, J.andParvatiyar, A. (2002),"Evolving relationship marketing into discipline", *Journal of Relationship Marketing*, Vol.1.N.1, pp.3-16.
- Spenner, P. (2010), "Why You Need a new-media "Ringmaster"", *Harvard Business Review*,Vol.88. N. 12, pp. 78-79.
- Tsai, J. (2009), "Everyone's Social (Already)", *CRM Magazine* ,Vol.1. N.6, pp.34-38.

Uncles, M.D. (2008). Know thy changing consumer. *Journal of Brand Management*, 15(4), 227-231.

Wipperfurth, A. (2005). *Brand hijack: Marketing without marketing*. New York: Portfolio.

Websites

Bradley, A. (2010), A New Definition of Social Media. Gartner.[Online]. Available at: http://blogs.gartner.com/anthony_bradley/2010/01/07/a-new-definition-of-social-media/ [accessed on 13th of May 2011].

Bughin, J., Doogan, J. and Vetvik O.J. (2010), A new way to measure world-of-mouth marketing. *Mckinseyquarterly*. [Online]. Available at: https://www.mckinseyquarterly.com/Marketing/Digital_Marketing/A_new_way_to_measure_word-of-mouth_marketing_2567 [accessed on 13th of January 2013].

Hird, J. (2010), 20+ Mind blowing statistics of social media revisited. *Econsultancy*. [Online]. Available at: <http://econsultancy.com/uk/blog/5324-20+-mind-blowing-social-media-statistics-revisited> [accessed on 15th of December 2012].

Mainwaring, S. (2011), The new power of consumers to influence brands. *Forbes*. [Online]. <http://www.forbes.com/sites/simonmainwaring/2011/09/07/the-new-power-of-consumers-to-influence-brands/> [accessed on 4 February 2013]
<http://www.forbes.com/sites/simonmainwaring/2011/09/07/the-new-power-of-consumers-to-influence-brands>

Nielsen (2009), "Nielsen global online consumer survey", April, Available at: www.nielsen.com [accessed 25 of June 2012].

Raby, M. (2010), Tweeter on a pace to reach 200 users by 2011. *TG Daily* [Online]. Available at: <http://www.tgdaily.com/software-brief/52284-twitter-on-pace-to-reach200-million-users-by-2011> [accessed on 13th of July 2012].

Zeisser M. (2010), Unlocking the elusive potential of social networks. *Mckinseyquarterly*. [Online]. Available at: https://www.mckinseyquarterly.com/Unlocking_the_elusive_potential_of_social_networks_2623 [accessed on 15th of July 2012].

WebCertain, (2010), *TheWebCertain Search and Social Report* [Online]. Available at: http://www.webcertain.com/WebCertain_Search_and_Social_Report_2010.pdf [accessed on 15th of June 2012].

THE RELATIONSHIP BETWEEN INCOME AND DEMAND FOR ENERGY COMMODITIES IN MALAWI: THE CASE OF SOUTH LUNZU TOWNSHIP

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ABSTRACT

This study analysed the effect of household income on demand for electricity and fuel-wood in South Lunzu Township of Blantyre city, Malawi. Survey data was collected through a semi-structured questionnaire. Using Engel function analysis employed in ordinary least squares framework, the study found a negative relationship between fuel-wood and income and a positive relationship between income and electricity expenditure. This shows that fuel-wood is regarded as an inferior commodity and electricity is a preferred energy facility. Other factors that explain the behaviour of choice between fuel-wood and electricity included home size, perception on well-being, age of the head of household, education of the head of household, and total expenditure. Campaigns aimed at changing the mindset of people such as those regarding renewable energy as solutions for rural areas only need to be intensified.

INTRODUCTION

The energy ladder theory suggests that the consumption of energy commodities can be modelled as the ascent of an energy ladder (Barnes and Floor, 1996; Rajmohan and Weerahewa; 2007). The climb follows a transition from the utilization of traditional, dirty and depletable energy resources such as biomass to a mix of modern and cleaner energy resources. The transition from and/or to the inferior types of energy depend on a number of factors. For households, as income improves, the energy basket also changes from biomass to modern resources with superior properties such as electricity. The agricultural and industrial sectors also move to superior energy resources as levels of development and civilisation improves. Households decision on which energy facilities to use therefore is modelled as a function of income. Cleaner and efficient energy facilities are obtainable only if households have higher levels of income.

The concept however seem to suggest that income is the single most important factor that determines the transition through the levels of energy consumption. Generally, it is believed that those energy resources which are cleaner, efficient and effective at the same time are the most superior to those which are not. Choice of energy facility can be a function of many other factors such as age of the population, education level, availability of the resource and culture (Mekonnen and Köhlin, 2008).

The study reported in this article contributes to the understanding of energy usage patterns of households in a township of South Lunzu in Blantyre, Malawi. The main aim was to analyse the behaviour of households as they go about making decisions on which energy facility to choose for home use. Two major energy facilities, electricity and wood are analysed. The study puts the theory of the energy ladder to the test for the case of a Malawian Township.

The article is organised as follows, section 2 provides the methodology followed by section 3 which provides the empirical results and interpretation. Finally, section 4 provides the conclusion.

LITERATURE REVIEW

Some empirical studies have shown that the theory of the energy ladder is objectionable especially considering the model's disregard of commonly observed multiple fuel uses and the persevering adherence to established, traditional techniques even in the face of modern alternatives (Masera et al, 2000; Jingchao and Kotani 2010; Barnes and Floor, 1996). In recent times, there has been a realisation that households tend to use multiple energy resources for different purposes in urban poor areas (Jingchao and Kotani, 2010). This is called fuel stacking. Fuel stacking is regarded as a hedging mechanism against possible failures in the supply chain of other cleaner fuel types especially in richer households. The problem with poor communities is the additional cost associated with having a variety of energy choices. As an example, the supply of liquid fuels such as petrol and diesel depends on availability of foreign currency, which is usually scarce in poor countries. Households in transition tend to use electricity for simple and inexpensive functions which do not require high amounts of voltage such as lighting, fridge, radio, and television. Activities that are perceived to consume more electricity such as cooking, water heating and ironing of clothes are done using less efficient and relatively dirty energy resources such as fuel-wood and charcoal (Barnes and Floor, 1996; Modi et al, 2006; Mekonnen and Köhlin, 2008).

There is also energy resource switching among households in poor countries. However, previous research shows that for such switching to take place, one of the most important determinants is the availability of other cleaner and therefore superior fuels (Mekonnen and Köhlin, 2008). Nevertheless, the energy ladder approach serves to explain two dominant problems in the energy sectors of less developed countries. Firstly, there is a widespread production and use of traditional energy sources which poses economic, environmental and health problems. In developing countries most people are poor and this limits their access to modern energy resources. They still depend on the traditional non-renewable resources. Secondly, the access to modern energy sources, such as electricity, petroleum or gas products, is very disproportionately strewn. Rural areas sometimes use firewood because they are too far away from the grid and/or their means of getting money is through sale of subsistence agriculture products that is expected once in a year. Cleaner energy facilities therefore are deemed as more of a luxury than a necessity thereby rendering global efforts such as the Kyoto Protocol of less value.

It is therefore imperative that energy projects for developing countries would have to specifically find strategies that would have two objectives; first to make the production and use of traditional fuels more sustainable, and secondly to enhance a social transition to clean, modern fuels (Modi et al, 2006). With 37% of Malawians living below the poverty line defined by \$1 a day, access to and use of modern forms of energy remains low. Biomass which comprise of all organic and traditional energy resources such as firewood, charcoal, animal dung and crop residues, account for 97% of Malawi's total primary energy supply; of which 59% is used in its primary form as firewood (52%) and residues (7%), while the remaining 38% are converted into charcoal. In 2008, 43.4% of all households in urban areas used charcoal, 41.8% firewood and only 13.6% used electricity for cooking (Kambewa and Chiwaula, 2010).

In order to achieve a positive social and economic transition towards efforts of successful globalisation especially the inclusion of least developed countries, Barnes and Floor (1996) stress the roles of demand and local participation as driving forces. The successful delivery of energy services is thus strongly related to the knowledge and understanding of local needs. If only a rural leader is convinced that respiratory infections will be eliminated if people adopt cleaner energy, that there will be more water pumped and supplied to his/her people and that health services at the local clinic or health centre will improve, then value will have been

RESEARCH METHODOLOGY

The data for this study was collected at the household level in South Lunzu Township in the city of Blantyre, Malawi between December 2011 and January 2012. The sampling technique was multistage starting with a purposeful country selection of Malawi because of its economic position being one of the poorest countries in the world. In Malawi, Blantyre city was chosen because for a long time, it had the highest population compared to other cities. Further, Blantyre is the hub of economic and manufacturing activities implying that the demand for energy both at the household and industry level was expected to be higher.

A standard questionnaire which asked specific questions that addressed the energy sector with a particular attention to renewable energy, energy expenditure at the household level, types of energy facilities normally used and access to modern facilities, was administered. Using random sampling where one in every five households was visited, a total of 319 questionnaires were administered using face to face interviews to the head of household.

Empirical model

To estimate demand elasticities, many studies in the past have adopted a complete demand system approach where the quantity demanded of a particular type of commodity, typically dividing between food and non-food items, are regarded as composite goods. These are called one-step approaches in the literature (Mustapha et al 2001, Radam et al 2005). However following Yeong-Sheng et al (2008), one of the best approaches in econometrically estimating commodity demand functions is to consider a two-step approach which first of all divides the consumption decision between food and non-food commodities and then the second stage considers the specific commodity, in this case energy. Consequently this study follows Rajmohan and Weerahewa (2007) where it was assumed that households first make their decision on the allocation of the total budget on composite commodities broadly defined as food and non-food items. The non-food items are divided between energy and non-energy goods. Next is to decide on which energy items to allocate a share of their budget. Among the energy commodities, a decision is also made regarding the total energy expenditure and how much to allocate on individual resources within the energy budget.

In microeconomic theory, Engle curves explain the relationship between the quantity of a commodity demanded and the income of the household holding other factors such as prices at constant levels. Budget elasticities calculated using the coefficients estimated in the Engle function are free measures of responsiveness of quantities demanded to a change in the total budget. In our case, the use of Engel functions assisted us to categorise the energy facilities as inferior, necessity or luxury based on income levels. The first stage is an estimation of an Engel function which is used to derive income elasticities. Following Yeong-Sheng et al (2008) equation (1) below is specified.

$$S_i = \alpha_0 + \alpha_1 \ln X + \sum_k \gamma_k H_k + \varepsilon \quad (1)$$

For purposes of the present study, the terms in equation number (1) above are;

S_i ; Expenditure share of energy commodity for each household i ,

X ; total expenditure of both energy and non-energy consumer goods and services,

H_k is a set of dummy variables which are household specific capturing both structural and demographic attributes of the respondents in the survey,

ε is an econometric error term which is assumed to be normally distributed with a mean of zero and a constant variance.

A separate model for each of the energy resources under scrutiny was estimated. Thus an Engel function for Fuel-wood and Electricity were estimated separately from each other.

RESULTS

In table 1, Household size, which was represented by *hsize*, was used to measure the number of inhabitants in a dwelling unit. The respondents were asked to provide the number of permanent members of the household who were staying at the dwelling unit at the time of the interview. Permanent residence included those members of the household who were temporarily away such as students in boarding schools and patients admitted in hospitals. On average, each household had 5 people with a maximum of 14 and minimum of 1. A standard deviation of about 2 indicated that there were little disparities in the number of people in each of the households visited in the survey.

Table 1: Descriptive Statistics for Continuous Data

VARIABLE	OBSERVATIONS	MEAN	STD. DEVIATION	MINIMUM	MAXIMUM
HMSIZE	318	68.92296	48.90312	8	540
HHSIZE	319	5.003135	1.991331	1	14
WTP_CLEAN	319	879.2194	3515.564	0	50000
WTPS_MOKE	319	620.4389	1123.249	0	10000
PIT_COST	319	429.7806	689.4695	0	4000
EDUC	316	10.81646	3.122552	1	16
INCOME	317	41629.4	61871.6	0	570000
AGE	319	38.36	11.815	14	82
EEXP	318	3570.314	2776.087	0	30000
TEXP	316	51537.57	44525.82	5500	269800

ESTB	316	0.088991	0.065064	0	0.594059
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Source: Survey data collected in South Lunzu, Blantyre.

In terms of willingness to pay for a clean environment represented by *wtp_clean*, a standard deviation of 3516 indicated that there were large disparities in the amount of money respondents were willing to part with to have their environment clean. This is easily observed from the table where one respondent was willing to pay up to MK50,000 (about US\$310 with a foreign currency exchange rate of MK161 = US\$1 as of December 2011 and January 2012) and yet others had no willingness to pay at all. On average however, the willingness-to-pay for environment clean was MK880.00 (US\$5.5 or ZAR44). Related to willingness-to-pay for a clean environment, respondents were asked whether they were willing to pay for a smoke free environment. This was in regard to smoke from burning of wood and factories nearby. Willingness-to-pay for a smoke free environment was represented by *wtps_moke* and in table 1 the minimum was 0 and the maximum was MK10,000 (US\$71) with a standard deviation of 1123. The average willingness to pay for a smoke free environment was MK620 (US\$3.8).

Taking income earned by the head of household to proxy household earnings, the highest amount was MK570,000 (about US\$3519) per month with the lowest making nothing at all. The average income for the sample's households was MK41,630 (about US\$257) per month. There were noticed income inequalities among the households as evidenced by a large standard deviation of 61872. Such a disparity in income distribution does not come as a surprise as the affordability of plots and accommodation in general attracts dwellers from all income groups.

Education was measured by the number of years of formal schooling a head of household completed as of the time of the survey. It was represented by *educ*. Where it was reported that a head of household repeated a school year, it was recorded as one year. Therefore, the respondents were asked to state their level of education from which the number of years of formal schooling was inferred following Malawi's education system. An individual would have spent 8 years of formal schooling if they stated that they had a Primary School Leaving Certificate, 10 years if they had a Junior Certificate of Education, and 12 years if they had a Malawi Schools Certificate of Education (MSCE) which is equivalent to O-Levels in the British school system. The most educated head of household had finished 16 years of progressive schooling, leading to a first degree, while the least educated had only 1 year of schooling. On average, head of households had 11 years of formal schooling, basically implying the completion of, at least, Junior Secondary School level.

Table 2 shows the results of the Ordinary Least Squares regression for Engel function analysing the effect of total expenditure on energy resources; income; employment status; household size; home size; respondent's perception on their well-being; age of the head of household; gender; marital status of head of household and education level of the head of household and marital status on electricity expenditure. According to the energy ladder hypothesis, electricity is an energy resource that represents high quality in the sense that it is clean and efficient (Barnes & Floor, 1996: 467).

Compared to fuel-wood, electricity was found to be a normal energy commodity in the sense that higher income households used more electricity than lower income households. As table 8.3 shows, there was a positive relationship between *ebs_elec* and *eexp*. This relationship was also statistically significant at the 1 percent level of rejecting the null hypothesis that there was no influence and relationship between expenditure on electricity and total expenditure on energy basket. The slope coefficient was 0.0000336 with an income elasticity of demand for electricity estimated to be about 0.5346 indicating that on average, increasing household income by 1 percent would lead to a 0.53 percent rise in the demand for electricity as an energy commodity.

The relation between expenditure on electricity and income was also positive and statistically significant at the 1 percent level to reject the null hypothesis that there was no influence and relationship between the two variables. The income elasticity of demand for electricity was about 0.15 and positive also. This means that a rise in income by 1 percent was associated with a rise in the demand for electricity of 0.15 percent holding other factors constant. Although the relationship was inelastic, the positive relationship conforms that for South Lunzu Township in the city of Blantyre, the energy ladder hypothesis holds. The statistically positive relationship between income and expenditure on electricity could lead to a conclusion that electricity was a 'normal good' in the sense that increases in income were associated with more households using it. Those with lower incomes tend to use less electricity but as their incomes increase, they shift from traditionally inefficient resources such as firewood to cleaner ones to which hydro electric power belongs

Home size as represented by hmsize was statistically significant at the 1 percent level. It therefore implies that the bigger the house the more likely the household was demanding more electricity. The elasticity of demand for electricity due to changes in home size was estimated to be 0.372 with a slope coefficient of 0.0008. Electricity therefore was found to be inelastic with small changes in the size of a dwelling unit. A 1 percent increase of a dwelling unit was associated with a 0.372 percent rise in demand for electricity.

Table 2:Regression estimates of Engel Function analysis for electricity

ebs_elec	Coefficient	elasticity	t	P> t
eexp	0.0000336	0.5346	6.54	0.000***
income	0.00000823	0.14985	3.48	0.001***
employment	-0.0109	-0.0492	-0.27	0.786
hhszise	-0.0025	-0.0715	-0.37	0.71
hmsize	0.0008	0.37202	2.84	0.005***
poor	-0.0434	-0.1379	-1.67	0.096*
Age	0.00293	0.6355	2.62	0.009***
educ	0.02528	1.68973	5.76	0.000***
gender	0.02332	0.05125	0.81	0.42
marriage	-0.0418	-0.1589	-1.39	0.165
_cons	-0.3219		-4.07	0.000***
R-Squared	0.4247		0.4057	
F(8, 306)	22.44		0.000***	

Source: Survey data collected in South Lunzu, Blantyre.

The perception on poverty represented by 'poor' was statistically significant at the 10 percent level of statistical significance to reject the null hypothesis that believing to be poor might lead to less demand for electricity. This relationship was negative meaning that the more an economic agent considers themselves to be poor the less electricity they would demand as a regular source of energy. The slope coefficient was -0.0434 with an elasticity of -0.1379.

There was a positive relationship between electricity demand and the level of education of the head of household which was also statistically significant at the 1 percent level of significance to reject the null hypothesis that education level does not influence expenditure on electricity. Education level of the head of household was also the only variable that had an elastic relationship with demand for electricity with an elasticity value of about 1.69 and a slope coefficient of 0.025. This means that increasing the education level of the head of household by 1 percent could lead to a 1.6 percent increase in the demand for electricity in South Lunzu Township. Four variables namely gender, marital status, employment status and household size were statistically insignificant to reject the null hypothesis that they did not influenced the demand for electricity among the respondents even at the 10 percent level of significance.

As the results show the slope coefficient between lneexp and ebs_wood was -0.15535 meaning that increasing the total expenditure on energy facilities by 1 percent will lower demand on all wood energy commodities by MK0.0016. In elasticity terms, a 1 percentage increase in total expenditure on energy facilities will lead to 0.22 percent decrease in demand for fuel wood. In this case the demand for fuel wood is inelastic to changes in income for the people of South Lunzu in Malawi. Demand was responding by less than the amount of expenditure change. This means that although there is a negative relationship between energy expenditure and demand for fuel wood, it cannot be concluded outright that fuel wood is an inferior commodity. There is an element of it being a necessity to the people probably indicating the demanded commodity coming from fuel-wood which is energy. Energy is a necessity without which life can be impossible. In addition, the availability and pricing of the commodity favours those that are poor thereby making it more inelastic to any small changes in income.

However, there was a negative relationship between household total expenditure on energy on the one hand and fuel wood as an energy facility on the other hand. The implication of this result is that wood is an inferior energy commodity whose demand decreases as income level of a household improve. This gives hope that in true sense although most people in Blantyre use fire wood and charcoal for their cooking needs, it is not by choice but rather their level of income is low that they simply use biomass for purposes of survival. Given more income or indeed as microeconomic theory of price predicts, by putting in place a mechanism that will ensure that the price of other more superior energy facilities is lower enough through subsidies for instance, will influence a migration from biomass to cleaner fuels.

The model is generally reliable as an explanation in the variability of the demand for energy facilities. The F-statistic and the adjusted R-squared were all relatively good. Therefore the null hypothesis is rejected in favour of the alternative that collectively, the independent variables namely total expenditure on energy facilities, home size, employment status of head of household and income are important. This model can be relied upon to explain consumer behaviour of demand for fuel wood in Blantyre holding other factors constant

CONCLUSION

The major objective of this paper was to analyse the effect of income on the demand for wood and electricity facilities in Blantyre, Malawi. A cross section data set from a sample of 319 households was analysed using ordinary least squares. The results in this study indicate that contrarily to other hypothesis, respondents were willing to substitute cleaner energy facilities such as electricity and solar with higher levels of income. Firewood was found to be an inferior commodity in the sense that higher levels of income led to less of these commodities being opted.

For sustainable development to be achieved, the study recommends three main policy issues. First is the civic education programmes to be enhanced especially regarding the benefits of renewable energy and that it is not for the rural areas only but also for the urban communities. Secondly, deliberate trade and tax policies aimed at reducing the price of renewable energy are recommended. For instance, zero import duties on all renewable energy facilities must be adopted.

Research, including the current one, must understand that rural people do not require modern energy for cooking, television, communication purpose, but rather for the basic social amenities first such as agriculture, water, and health facilities. The other uses are secondary and more of luxuries. Consequently, energy's impact to development should be assessed in the capacity of a contributing factor. The implied yardstick of such assessment is the extent to which interventions contribute to meeting local needs.

REFERENCES

- Abebaw D. (2007). Household Determinants of Fuel-wood Choice in Urban Ethiopia: A Case Study of Jimma Town. *The Journal of Developing Areas*.
- Agba MS (2011). Energy Poverty and the Leadership Question in Nigeria: an Overview and Implication for the Future". *Journal of Public Administration and Policy Research*; Vol. 3; No. 2, pp. 48-51. <http://www.academicjournals.org/jpapr>.
- Bacon R, Bhattacharya S, Kojima M (2010). Expenditure of Low Income Households on Energy: Evidence from Africa and Asia. *Extractive Industries for Development Series Number 16*, World Bank Oil, Gas, and Mining Policy Division Working Paper.
- Barnes, D. & Floor, W. 1996. Rural energy in developing countries: a challenge for economic development. *Annual review of energy and environment*, 21:497-530.
- Bhattacharya SC (2011). *Energy Economics*, Springer-Verlag London Limited.
- Birol F (2007). Energy Economics: A Place for Energy Poverty in the Agenda? *The Energy Journal*, Vol. 28, No. 3.

- Cameron AC, Trivedi PK. (2005). *Microeconometrics: Methods and Applications*. Cambridge University Press, Cambridge.
- Cuvilas CA, Jirjis R, Lucas C (2010). Energy Situation in Mozambique: A review. *Renewable and Sustainable Energy Reviews*; pp: 2139–2146.
- Deaton AS (1997). *The Analysis of Household Surveys: A Microeconomic Approach to Development Policy*. World Bank, John Hopkins Press, Baltimore.
- Deaton AS (1984). A Reconsideration of the Empirical Implications of Additive Preferences, *Economic Journal* 84; pp: 338-348.
- Deaton AS, Muellbauer J (1980). An Almost Ideal Demand System. *American Economic Review* 70; pp:312-336.
- Jingchao Z, Kotani J (2010). The Determinants of Household Energy Demand in Rural Beijing: Can the Environmental-friendly Technologies be Effective? Working Papers EMS_2010_15, Research Institute, International University of Japan.
- Masera OR, Saatkamp BD, Kammen DM (2000). Energy and Health Transactions in Development : Fuel use, Stove Technology, and Morbidity in Jaracuaro, Mexico. *Energy for Sustainable Development*. 4 no.2 (7-16). International Energy Initiative, India.
- Mekonnen A, Köhlin G (2008). Determinants of Household Fuel Choice in Major Cities in Ethiopia. Environment for Development, Discussion Paper Series.
- Mills R, Toke AN (1985) *Energy, Economics, and the Environment*. Prentice-Hall, New Jersey.
- Modi V, McDade S, Lallement D, Saghir J (2006). *Energy and the Millennium Development Goals*. New York: Energy Sector Management Assistance Programme, United Nations Development Programme, UN Millennium Project, and World Bank.
- Mustapha RA, Aziz ARA, Zubaidi BA, Radam A (2001). Demand and Prospects for Food in Malaysia. In: Radam, A., and Arshad, F. M. (eds.): *Repositioning of the Agriculture industry in the next Millennium*. UPM Press, Serdang, pp. 148–159.
- Radam A, Arshad FM, Mohamed ZA (2005). *The Fruits industry in Malaysia: Issues and Challenges*. UPM Press, Serdang.
- Rajmohan K, Weerahewa J (2007). Household Energy Consumption Patterns in Sri Lanka. *Sri Lankan Journal of Agricultural Economics*, Vol. 9, pp 55-77.
- Yeong-Sheng T, Nasir MS, Zainalabidin M, Mahir A, Alias R (2008). Analysis of Demand for Vegetable in Malaysia, MPRA Paper 15033, University Library of Munich, Germany, available <http://econpapers.repec.org/paper/pramprapa/14833.htm>

VALUING THE IMPACT OF POLLUTION ON THE POOR: THE CASE OF BOPHELONG

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ABSTRACT

This paper reports on a comparative study of poverty and the social cost of pollution among poor households in Bophelong. The level of poverty was measured and compared with the cost of pollution as revealed by citizens of Bophelong through a household questionnaire. To do this, the level of poverty was determined by looking at the Household Subsistence Level (HSL), while the social cost of pollution was determined using Contingent Valuation methods. These methods are generally termed contingent valuation (CV) methods and are used to elicit from respondents what they would be willing to pay for a cleaner environment or what they would have to be paid to accept the pollution. Further, the study performed regression analysis to determine the effect of pollution on poverty levels. Pollution was found to be a problem in the area as reported by respondents. Respondents valued pollution higher in 2013 compared to 2003. It is important for policy makers to be aware of the cost of pollution to the poor as they are more vulnerable due to the inability to cushion themselves against any negative consequences.

INTRODUCTION

The environment can be viewed as a composite asset that provides a variety of services. Its importance lies in its ability to provide the life support systems that sustain humanity's very own existence, but it is an asset nonetheless (Tietenberg,2000, Terblanche. et al, 1994). The advantages in having a clean environment can be seen through global efforts to have it remain clean. In many parts of the developing world, poverty combined with rapid population growth is leading to widespread environmental degradation - primarily forests, soils and water. People living in subsistence economies are faced with few alternatives to depleting their natural resources (Tietenberg, 2000; Terblanche et al,1994). With the advent of industrialization come the negative consequences of pollution and environmental degradation. South Africa is no exception to the air pollution problems caused by increased industrialization. The effects of air pollution are felt throughout the country particularly in areas of heavy industrial development such as the South Durban Industrial Basin and the Vaal Triangle. This is also evident in areas where households rely on non-electric sources of energy such as kerosene, dung, and coal for household energy needs (Terblanche et al,1994).

The problem of pollution in urban areas has been exacerbated by a global increase of people moving from rural areas to cities. Nearly half of all people in the world now live in cities; an increasing number of them travel enormous distances every year by private car and in aircraft. In the developed world, technology has transformed patterns of work and family life, communications, leisure activities, diet and health. Similar transformations are well under way in the more prosperous parts of the developing world (UNEP,2000). Rapid urbanization in South Africa has resulted from migration of people from rural areas into cities in search of jobs and a better life.

The fact that air pollution causes ill health and death is well recognized. Air pollution has both acute and chronic effects on human health. Health effects range anywhere from minor irritation of eyes and the upper respiratory system to chronic respiratory disease, heart disease, lung cancer, and death.(Hamilton,1995:108). Air pollution has been shown to cause acute respiratory infections in children and chronic bronchitis in adults. It has also been shown to worsen the condition of people with pre-existing heart or lung disease. Among asthmatics, air pollution has been shown to aggravate the frequency and severity of

attacks. Both short-term and long-term exposures have also been linked with premature mortality and reduced life expectancy.

The past two decades has seen a growth in studies attempting to value environmental goods such as pollution and water quality by calculating their social cost to society (Hanneman, 1994:19). Most of these studies are based on health economics, where it is rather common to use the cost-of-illness (COI) framework to quantify the costs of different health risk factors (e.g. air/noise pollution, smoking, drug/alcohol addiction etc) in monetary terms. This includes measuring and quantifying the probability of sickness and its associated cost amongst the affected. A study by the World Health Organisation (WHO,2000) estimated that indoor air pollution alone kill a million children annually in South Asia and Africa, inflicting a particular severe impact on poor families. Today although everyone might suffer from the effects of increased pollution, etc, poor people are especially vulnerable since they are closer to the margin of survival and can less afford to cushion themselves from the impacts of pollution.

Given the above synopsis of the consequences of pollution, it was necessary to understand the social cost of pollution amongst poor households. In this paper, the level of poverty in Bophelong and its associated environmental value is studied. The social cost of pollution as revealed by the residents of the area is studied against the backdrop of important issues, such as urbanization and environmental degradation. A general understanding of poverty is also provided as the basis for the understanding of the findings of this comparative study.

LITERATURE ON POLLUTION AND POVERTY

Poverty can mean different things to different people. In popular discourse, poverty is a concept that captures a range of meanings. Poverty has usually been conceptualized as a state of being, characterized by a lack of income that leads to an inability to provide an adequate level of basic necessities. While ultimately income is important, the critical underlying resources that produce income are the assets that the poor have access to and control over in pursuing their livelihood strategies (UNDP,1997).The 1980's and 1990's saw publication of studies indicating that low income communities were being affected disproportionately higher by environmental hazards(Jacobs, 2001; Kammen,1995; Kopp et al,1997). In the 1990's and 2000's there was an increase in studies highlighting the impact of pollution on the poor (Bullard ,1995). In most African countries atmospheric pollution has only emerged as a problem in the past few decades. Its severity and impact is still largely unknown (Berk &Schulman,1995).

For poor people especially, health is also a crucially important economic asset. Their livelihoods depend on it. When poor people become ill or injured, the entire household can become trapped in a downward spiral of lost income and high health care costs. Investment in health is increasingly recognized as an important means of economic development and a prerequisite for developing countries. This is a particularly important consideration for poor people due to the need to break out of the cycle of poverty. Good health contributes to development in a number of ways: it increases labour productivity, educational attainment and investment, and facilitates the demographic transition (OECD,2003). An important issue relates to valuing the health impacts of air pollution. The study reported in this article was aimed at measuring the social cost of pollution among poor households in a South African township. This valuation is usually done using 'willingness to pay' or 'cost of illness' approaches (Drummond et al, 2005). The methods used to determine the social cost of pollution are based on welfare economics and consumer behaviour. These methods are widely used and accepted as a scientific way to determine social cost of different commodities.

The approach used in this article is a survey-based stated preference technique, where respondents are asked to place a monetary value on a good presented in a hypothetical scenario. These methods are generally termed contingent valuation (CV) methods and are used to elicit from respondents what they would be willing to pay or what they would have to be paid to give it up. The contingent valuation method is referred to as a stated preference method, because it asks people to directly state their values, rather than inferring values from actual choices (Atkinson and Mourato, 2008; Bateman et al,2003). The contingent valuation method (CVM) is used to estimate economic values for all kinds of ecosystem and environmental services (Carson and Michell, 1993). This method involves asking people directly, in a survey, how much they would be willing to pay for specific environmental services. People can also be asked for the amount of compensation they would be willing to accept to give up specific environmental services (Carson,2000; Berk and Fovell,1999 417; Portney, 2007).

A survey questionnaire was used to determine the “willingness to pay” or “willingness to accept” of respondents with respect to pollution. In the study respondents were asked if they have had the money, what they would be willing to pay extra to avoid pollution etc. This data was then used to calculate the social cost of pollution.

BACKGROUND OF THE STUDY AREA

The study was conducted in Bophelong, semi-urban residential township in Southern Gauteng. Bophelong is a former black township on the outskirts of the industrial town of Vanderbijlpark. It was established in 1955. The area belongs to the Emfuleni Municipality, on the southern tip of the Gauteng Province in South Africa. In the late nineties, the area was extended with 10,000 new low cost (RDP) houses. Most of the people who settled in the new houses were poor – those who could not previously afford a house. The population in Bophelong is estimated at 37,779, and the number of households is estimated at 12,352. The average household size in Bophelong, calculated from Statistics SA data (2007) is three persons per household. The average household size for Emfuleni as a whole is 3.52.

The size of Bophelong is approximately 9 square kilometer with a shopping complex and informal shops and markets. A total of 3 primary Schools and 3 secondary schools can be found in Bophelong. There is however no recreational facilities in Bophelong. Several studies have found increased levels of poverty in Bophelong. Sekhampu (2004), in his study found 62 percent of the population to be living below the poverty line. A follow up study by Slabbert and Sekhampu (2009) revealed that 66.3 percent of the residents of Bophelong are poor and that the unemployment rate is 62.2 percent. Fifty four percent of the poor were found to be female. Dubihlela (2011) found a poverty gap index of 0.53 among female-headed households in Bophelong, meaning that on average, households have a shortfall of 53 percent of their income to be placed on their respective poverty line.

METHODOLOGY

The research was based on a quantitative survey method using questionnaire interviews. Maps were obtained for the different areas of Bophelong and a stratified sample was compiled by taking into account the geographical distribution and concentration of people in different areas of the township. Plots/sites at which field workers were supposed to complete questionnaires were identified individually from the map before the field workers went out. However, where people could not be obtained for an interview, or where it was impossible to trace the house, a next pre-selected household was interviewed. Respondents were under no obligation to participate in the survey if they wished not to do so. The questionnaire included information on demographics, participants’ income and expenditure patterns and their general view about their environment. The opinions of the residents on the following environmental issues were also tested. Questions related to the following were asked:

- the cleanliness of the environment and responsibilities to clean it
- air and dust pollution and responsibilities to reduce levels of this pollution
- noise pollution and responsibilities for reducing it, and
- the value attached by residents to different kinds of pollution

Participants

A total of 300 households were interviewed by four fieldworkers. All the households approached were willing to partake in the survey and 300 questionnaires were completed in September 2003 and again in May 2009. Experience in previous surveys conducted by the Employment Research Unit (ERU), Vaal Research Group (VRG) and other institutions (e.g. Bureau of Market Research) has shown that samples of this size with a low refusal rate supply statistically reliable data within reasonable limits.

Measuring poverty

Following the guidelines of the World Bank, a poor household is defined as a household of which the combined income of all its members is less than the Household subsistence Level (HSL) as determined for the specific household. If the combined income of a household is described by y_i and the poverty line (HSL) of the same household is described by z_i , the extent of poverty, P_i , of this household is described by $P_i(y_i;$

zi) (Slabbert,2004:47). The headcount index is defined as the fraction of the population below the poverty line. In this report the headcount index is adapted to indicate the fraction of households that fall below their individual poverty lines, and is described by means of the equation (Ravallion,1992).

Using the 2000 Income and Expenditure Survey data, Statistics South Africa estimated that when consuming the kinds of foodstuff commonly available to low income South Africans, it costs R 211(\$26.37) per person every month to satisfy a daily energy requirement of 2261 kilocalories. This means that R211 (\$26.37) is the amount necessary to purchase enough food to meet the basic daily food energy requirements for the average person over one month. Another consideration is the need by households for other goods and services beyond food in order to meet basic needs. This includes accommodation, electricity, clothing, and schooling for children, transport and medical services, amongst other things.

The cost of such essential non-food items were estimated at R111 (\$13.88) per capita per month. Adding these figures together (R 211 and R111) gives an estimate of the minimum cost of essential food and non-food consumption per capita per month. It gives a poverty line of R322 per capita per month in 2000 prices (Statistics South Africa, 2007). When increased with inflation, the threshold amount to R570 in 2010 prices (Statistics South Africa, 2011). For this study the poverty line was adjusted for inflation and calculated at R593 (\$74) per capita per month. Statistics South Africa suggests that expenses attributable to children and adults in poor households are of similar magnitude. By estimating the cost of an additional male/female of various ages when added to a baseline household of two adults, it can be shown that the cost of a child in South Africa is roughly the same as the additional cost of an adult. This suggests that the additional complexity of adult equivalence calculations may be unnecessary (Stats SA, 2007).

RESULTS

Characteristics of the sample group

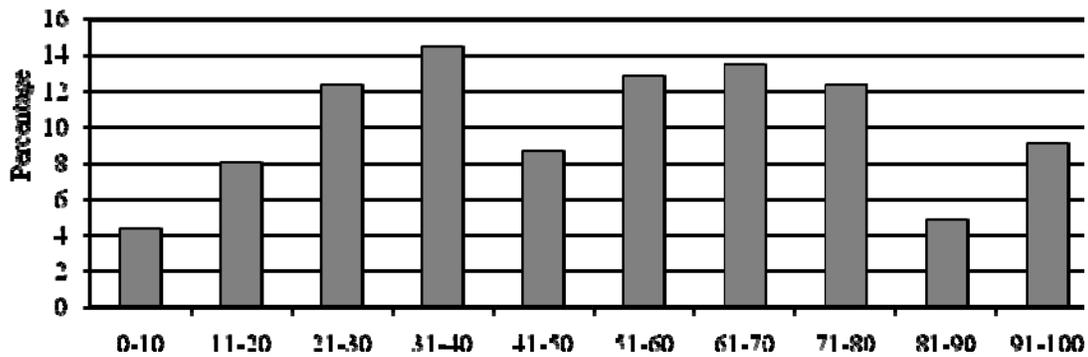
The gender distribution of the sampled population showed that the majority (52.7 per cent) of the sampled population were female. Regarding the composition of households in terms of the status of members of the family, the survey results showed that 11.3 per cent of household members are fathers, compared with 20.8 per cent mothers. This indicates an increased likelihood of single parenting. The percentage of sons and daughters in the sample population was 26.3 per cent and 26.7 per cent, respectively. Further analysis shows that 11 per cent of the population falls into the category of “others”, which was used to account for grandchildren and other household inhabitants (related or not). Figure 1 shows an analysis of household composition. Considering the average length of stay of respondents, 38% of Bophelong’s residents moved into the Vaal Triangle in the last 10 years. Of the sampled population 76.5% were below the age of 40, which is the age where people in general are the most productive. The number of persons per household varied from 1 to 123 members. The average household had 5 members. There were greater variations in household income, with the lowest household income recorded at R100 (\$11) per month and the highest at R22 000 (\$2400). The average number of years of schooling of the respondents was 6.2 years, which equates to primary schooling education.

Poverty status of sampled households

Making use of the methodology as explained, the level of poverty in Bophelong was determined. The percentage of households below the poverty line in Bophelong was 66.3%. The closer proximity of the township to the industrial town of Vanderbijlpark allows for access to low-paid household jobs like gardeners and domestic servants. Although this allows for a lower unemployment rate, it does not reduce the level of poverty at all. Households in Bophelong are therefore just as poor as the average townships household in the Vaal Triangle.

Figure 1 portrays the distribution of poor households below the poverty line. If most households earn 90-100% of their own HSL (Household Subsistence Level – which is used as the poverty line), this would indicate that the poverty is not very severe. Figure 4, however, shows that 47.6% of all households in Bophelong have an income of less than 50% of their HSL, which indicates a high degree of poverty. Regarding the gender distribution of the poor, 55.8% of the poor population is female and 44.2% male. It seems that the female population is slightly more affected by poverty than the male population.

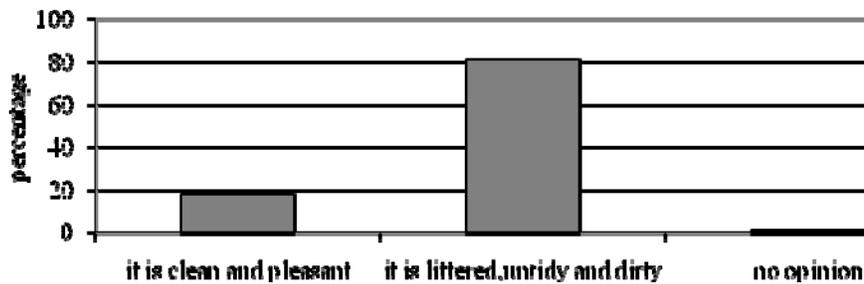
Figure 1: Distribution of the poor below the poverty line



Pollution and the social cost of pollution

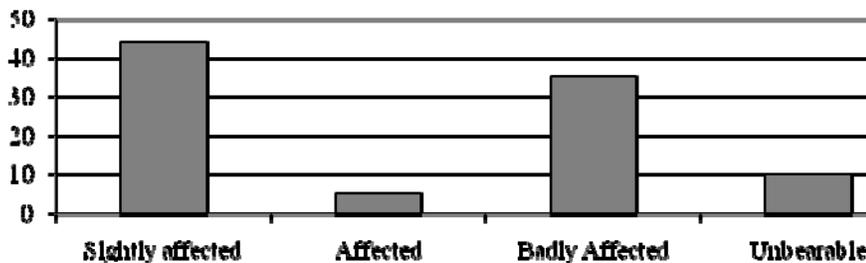
Three areas of environmental issues were analysed; namely the extent households are affected by or view littering, air and dust pollution, and noise pollution. Figure 2 shows the opinion of the residents of Bophelong about the state of the environment in terms of littering. Of the surveyed population, 81% regarded the environment as polluted and dirty.

Figure 2: Opinions about the Environment



The greater majority of respondents (91%) were of the opinion that something should be done about cleaning the environment. On a question of who should be responsible and take the initiative to clean the environment; 40% regard the municipality as responsible, and 38% are of the opinion that a campaign involving the whole community should be organised. In measuring the social cost of pollution an average monthly Rand value of R236 per household was given. This is the average amount households were willing to pay to have a clean environment. Figure 3 shows the number of people affected by air pollution.

Figure 3: Opinion about Air Pollution



When considering dust pollution the number of households affected by dust pollution 11% survey indicated that they are not affected. Figure 4 shows responses to the impact of dust pollution in the area. The average monthly Rand value that an average household attaches to clean air is R56 and to a dust-free environment R52. According to Figure 5, 47% of the respondents indicated that they are affected by noise in

Bophelong. The average monthly Rand value that an average household attaches to a quiet environment is R31

Figure 4: Opinion about Dust Pollution (%)

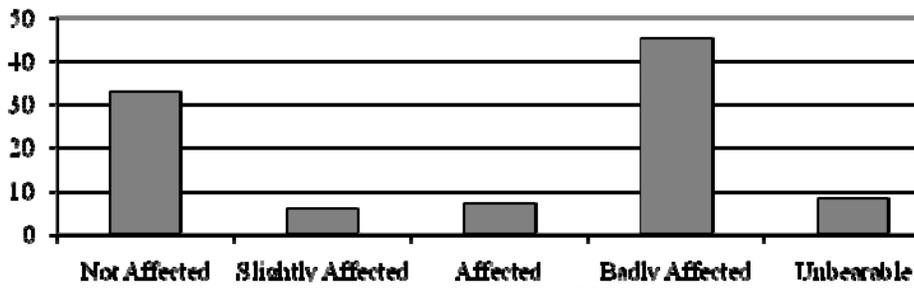
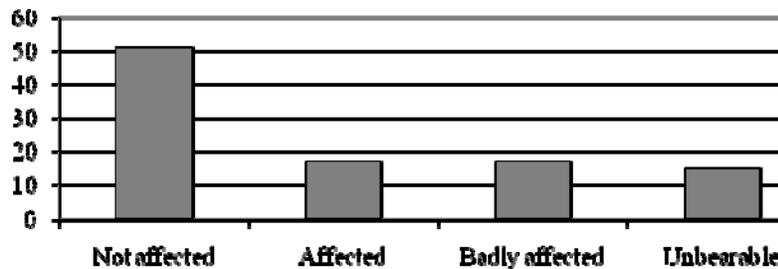


Figure 5: Opinion about Noise (%)



As shown in figure 3, a clean environment is seen as being of a much higher priority than a smoke-free, dust-free or quiet environment. However, taking into account the percentage of households that are affected and the average amount they are willing to pay to live in a clean, non-polluted, dust-free and quiet environment, the monetary value (annual social cost) of pollution can be calculated. When looking at the social cost of pollution revealed by the households, it shows that respondents value air pollution more important than a clean environment, dust and noise pollution. Table 1 compares the revealed social costs in the various categories of interest

Table 1: A Comparison of the Social Cost of Pollution

Pollution	(millions)
Environmental pollution (littering)	R 7 700 000 (\$855 556)
Air pollution	R 8 900 000 (\$988 889)
Dust pollution	R 8 800 000 (\$977 778)
Noise pollution	R 3 700 000 (\$411 111)

CONCLUSIONS

The study reported in this article clearly shows that policy makers need to make sure that they understand that poorer communities cannot cushion themselves against the impact of different types of pollution. It is also important to note that poorer communities value the impact of pollution high and that even when poorer communities become even poorer, pollution may still be important to them. It was shown in this study that Bophelong residents are poor. In this regard 47.6% of all households in Bophelong had an income of less than 50% of their HSL. The poverty gap ratio was recorded at 0.49, indicating that on average poor household's lack 49% of the income to attain a level equal to their poverty line.

When considering the opinion of a clean environment more residents indicate that the environment is dirty and untidy. Policy makers need to take the urgent need of the poor in consideration and the case of Bophelong is again an example of a poor community with a need of a cleaner environment.

REFERENCES

- Atkinson, G. & Mourato, S. (2008). Environmental cost benefit analysis . *Annual review of Environment and resources*.
- Bateman, P.A., Boyle, K.j. & Brown, T. C.(2003). A primer on nonmarket valuation. Kluwer Academic publishers, Dordrecht.
- Berk, R.A. & Schulman, D. (1995). public perceptions of global warming. *climate change*, vol29:1-33
- Berk, R.A. & Fovell, R.G.(1999). Public perception of climate change: a willingness to pay assessment. *Climate Change*. 41:413-446
- Bullard, R. (1995). Unequal protection : Environmental justice and communities of color. San Francisco.
- Carson, R.T.(2000). Contingent valuation: A users guide. *Environmental Sciences and Technology*. 34:1413-1418
- Carson, R.T. & Mitchell, R.C.(1993). The value of clean water: the public's willingness to pay for boatable, fishable and swimmable quality water. *Water Resource Research*. vol 29:2445-2454
- Drummond MF, Sculpher MJ, Torrance GW, Stoddart GL:(2005) Methods for the Economic Evaluation of Healthcare Programmes. Third edition. Oxford University Press. New York;
- Dubihlela, D. (2011) *Socio-economic challenges and the survival mechanisms for the female-headed households in the Bophelong Township*. Vanderbijlpark: North-West University (M.Com Dissertation),
- Hammilton, J.(1995). Testing for environmental racism: Prejudice, profits, political power. *Journal of policy analysis and management*. 14:107-132
- Hanemann, W.M. (1994). Valuing the environment through contingent valuation. *Journal of economic perspectives*. vol 8 no 4:19-43.
- Jacobs, N.(2001). Asbestos related disease in south Africa: opportunities and challenges remaining since the 1998 parliamentary asbestos summit. A report presented to South Africa's parliamentary portfolio committee on environmental affairs. October 2001
- Kammen, D.M.(1995). Cookstoves for the developing world. *Scientific American* . 273(1):712-76.
- Kopp, R.J. ,Pommerehne, w. & Schwartz.(1997). determining the value of non market goods: Economic, Psychological and relevant aspects of Contingent Valation methods. Boston: Kluwer
- OECD. (2003). Poverty and Health. OECD Publishing
- Portney, P.R. (2007). The contingent valuation debate: Why Economists should care. *Journal of economic perspectives*. vol 8. no 4:3-17
- Ravallion, M (1992). "Poverty comparisons: a guide to concepts and methods". LSMS working paper no. 88, (Washington D.C.: World Bank)
- Slabbert, T.J.C.(2004) "Poverty among black households in the Vaal Triangle metropolitan area: a micro analysis", (Vanderbijlpark: Vista University – Phd Thesis),
- Sekhampu, T.J.(2004) *An in-depth micro-economic analysis of the poor in Bophelong with special emphasis on the activities they use to sustain themselves*. Vanderbijlpark: North-West University (M.Com Dissertation),
- Slabbert, T.J.C & Sekhampu, T.J. (2009) *Bophelong: a socio-economic & environmental analysis*. Research report no.22. Vanderbijlpark: Vaal Research Group., 2009.
- Statistics South Africa. (2007) *Community survey 2007, statistical release P0301.1*. Pretoria: Government printer..

Terblanche P., Nel R. & Golding T. (1994). Household energy sources in South Africa: an overview of the impact of air pollution on human health. CSIR Environmental Services, Department of Mineral and Energy Affairs & EMSA, Pretoria.

Tietenberg, T. (2000). Environmental & natural resource economic, 2nd ed. New York: Harper CollinsPublisher

NEP. (2000). Global Environment Outlook. New York: UNEP

UNDP (1997). United Nations Development Program.

World Health Organisation. (2004). Global and Regional Burden of Disease. Washington

THE IMPACTS OF EMPLOYEE SERVICE ATTITUDE ON SERVICE QUALITY, CUSTOMER SATISFACTION AND CUSTOMER LOYALTY IN THE HOTEL INDUSTRY

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ABSTRACT

This study investigates the effects of hotel employees' service attitude on service quality, while it also examines the relationships among hotel employees' service attitude, service quality, customer satisfaction, and loyalty. Data was obtained from international hotel employees in Tianjin, China. The findings of the study indicated that among the variables of employee service attitude, emotional intelligence and role clarity had significant impacts on service quality and customer satisfaction. However, job satisfaction was not supported to be the impact on them. Service quality was improved to be a significant impact on customer satisfaction and customer loyalty. And also it was found there is a positive relationship between customer satisfaction and customer loyalty. The study would be meaningful in offering useful information on the importance of employees' service attitude in the hotel industry.

INTRODUCTION

Service excellence is a key differentiation strategy of differentiation (Prince and Simon, 2009). For the hospitality industry in particular, it represents a primary source of competitive advantage (Pfeffer, 1998). The alignment of employee service values and behaviors with an organization's strategic service priorities and the service expectations of its customers are therefore critical to organizational success (Boxall and Purcell, 2003). In today's rapid development of service industries, many hotel companies are exploring how they'll win in the market competition. Since hotels as a business entity providing accommodation services, competition is the most important quality of service. As hotels provide services to customers in the hotel business, the direct participants of the staff, employees are the cornerstone of the enterprise's survival and development. The employees in a hotel can really alter the quality of service and the whole atmosphere of the hotel.

As three aspects of guest experience (service products, service setting, service delivery system) exist, the hotel business is also called experience business (Choi, 2011). Guests may have great experiences in a hotel, or they may not. The experiences are the crucial factors in a customer revisit. You may lose some of your guests when you do a wrong behavior when providing services to them. Therefore, it is wise to do the right things to please your guests and make them build a loyalty to your brand.

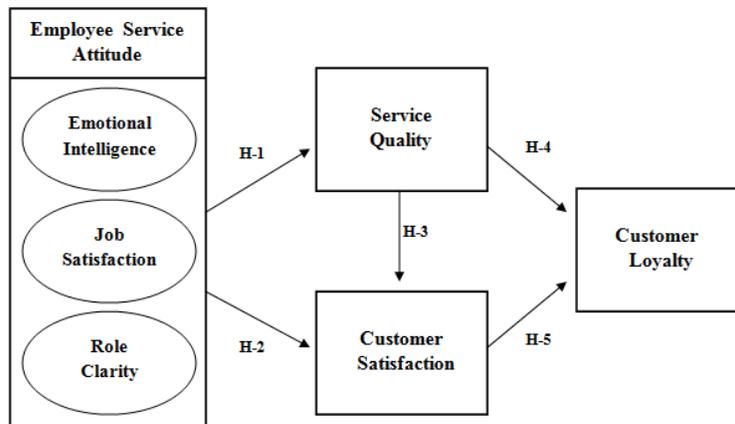
Having said the importance of services in the hotel industry and the need for qualified services in the international hotels in China, the study pursues an investigation of the relationship among employee service attitude, service quality, customer satisfaction and loyalty in the international hotels. Specifically, the study folds three objectives:

- 1) to explore the effects of employee service attitude on service quality in the international hotels; 2) to analyze the impact of service quality on customer loyalty; 3) to investigate the influence of customer satisfaction on customer loyalty.

METHODOLOGY

Based on the literature on employee's service attitude, service quality and customer loyalty, the model of the study has been developed (Figure 1).

Figure 1: Proposed research model



HYPOTHESES

It is claimed that emotional intelligence affects several work behaviors, including employee commitment, teamwork, and development of talent, innovation, and quality of service and customer loyalty (Zeidner et al., 2004, p. 386). Geller (1985) demonstrated that among nine key factors in successfully running hotels, employee service attitude is the most important. Chebat and colleagues (2002) indicated employees have become a critical one for the hospitality industry.

H1: Employee's service attitude has a positive impact on service quality.

H1-1: The employee's emotional intelligence has a positive impact on service quality.

H1-2: The employee's job satisfaction has a positive impact on service quality.

H1-3: The employee's role clarity has a positive impact on service quality.

Frichol (2009) explained employee service attitude is the primary reason of the customer satisfaction. When managers treat their employees well, employees in turn treat their customers well Gronross (1983). Numerous studies indicated that job satisfaction of employee is significantly related to customer satisfaction (Spinelli & Canavos, 2000). Tornow and Wiley (1991) showed the relationship that service attitude of employees is one of the factors in customer satisfaction.

H 2: Employee's service attitude has a positive impact on customer satisfaction.

H2-1: The employee's emotional intelligence has a positive impact on customer satisfaction.

H2-2: The employee's job satisfaction has a positive impact on customer satisfaction.

H2-3: The employee's role clarity has a positive impact on customer satisfaction.

Hypothesis 3: Service quality has a positive impact on customer satisfaction.

Service quality has become an important topic because of its relationship to customer satisfaction (Brady et al., 2002; Caruana, 2002) and consumer loyalty (Bowen & Chen, 2001; Caruana, 2002; Wong & Sohal, 2003).

Hypothesis 4: Service quality has a significant impact on customer loyalty.

Previous studies showed that customer satisfaction has a relationship with customer loyalty. Selnes (1993) found that an effect of customer satisfaction on customer loyalty appeared when customers are able to evaluate product quality through their experience with the service or products. Customer satisfaction is positively correlated to customer loyalty (Kandampully and Suhartanto, 2000).

Hypothesis 5: Customer satisfaction has a positive impact on customer loyalty.

The sample of the study is comprised of employees in the five-star international chain hotels in Tianjin (one of municipalities in China), China. Data has been collected from five luxury hotels in Tianjin. The hotel properties selected were based on the consideration of representatives of the luxury hotels which

can meet the standard in keeping balance between food & beverage, accommodation, leisure, convention, and business.

The surveys were conducted by the employees working in these five hotels to explore the relationships among employee service attitude, service quality, and customer loyalty. The survey was performed on October 20 to November 10, 2012. The total participants of the survey were 240 employees of the chosen hotels.

RESULTS

Table 1: Demographics of the survey respondents

Variables		Frequency	%
Gender	Male	98	44.5
	Female	122	55.5
Age	20-29	75	34.1
	30-39	92	41.8
	40-49	30	13.6
	Above 50	23	10.5
Marital Status	Single	89	40.5
	Married	131	59.5
Educational Background	High School	35	15.9
	College	80	36.4
	Undergraduate	72	32.7
	Graduate	33	15.0
Job Position	Staff	139	63.2
	Supervisor	32	14.5
	Manager	23	10.5
	General Manager	26	11.8
Salary	Below ¥2000	58	26.4
	¥2001-4000	79	35.9
	¥4001-6000	47	21.3
	¥6001-8000	14	6.4
	Above ¥8000	22	10.0
Total	220	100.0	

Table 2: Factor and reliability analysis of Employee's Service Attitude

	Questionnaire Items	Factor Loading	Cronbach's α	Eigenvalues	Variance (%)
Emotional Intelligence	I am never affected by low spirits when performing my tasks.	.807	.863	3.610	24.064
	I can offer a good quality service to a querulous customer all the same.	.869			
	I offer a good quality service even though I am affected by low spirits.	.878			
	The personal emotion influences my attitude when providing service to customers.	.663			
Job Satisfaction	I am satisfied with my salary.	.767	.878	3.271	21.808
	I feel satisfied with the welfare provided by the hotel.	.763			

	I am satisfied with my working environment.	.830			
	Job contents consist with my interest.	.771			
	I am eligible for my position.	.703			
	I like the orientation of work given by my superiors.	.782			
	Hotel offers me a good training.	.701			
Role Clarity	I am clear about my duty.	.786	.881	2.982	19.880
	I know exactly what the hotel ask me to do.	.823			
	I can effectively finish the tasks given by my superiors.	.871			
	I can accurately finish the tasks given by my superiors.	.805			
Total Variance (%)		65.752			
K M O		.825			
Sig.		.000			

Table 3: Factor and reliability analysis of Service Quality

	Questionnaire Items	Factor Loading	Cronbach's α
Service Quality	My colleagues and I have never had a dispute with customers.	.708	.818
	There are hardly any employee grievances in the hotel.	.731	
	I am told to be neatly dressed and asked to use a standard terms.	.900	
	I can solve the problems with the customers in short order and make them satisfied.	.924	
	I inquire the problems of customers actively.	.914	
	The hotel I work in affords integrated personalization.	.991	
Total Variance (%)		75.831	
K M O		.859	
Sig.		.000	

Table 4: Factor and reliability analysis of Customer Satisfaction

	Questionnaire Items	Factor Loading	Cronbach's α
Customer Satisfaction	I can solve the customer problems immediately.	.735	.841
	I can solve the customer problems effectively.	.768	
	I can solve the customer problems accurately.	.892	
	I can afford service to meet the customer requires.	.910	
Total Variance (%)		68.831	

K M O	.755
Sig.	.000

Table 5: Factor and reliability analysis of Customer Loyalty

	Questionnaire Items	Factor Loading	Cronbach's α
Customer Loyalty	Numbers of VIP keep ascending.	.819	.836
	Customers pay regular visits to hotel.	.776	
	Customers invited their friends and families to hotel.	.818	
	Customers pay regular visits to hotel even though the price improves.	.865	
Total Variance (%)		67.211	
K M O		.710	
Sig.		.000	

Table 6: Regression Analysis of H-1

Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Service Quality	Emotional Intelligence	.258	.050	.350	5.144	.000*
	Job Satisfaction	.071	.046	.093	1.564	.119
	Role Clarity	.180	.060	.204	2.988	.003**
R=.496, R ² =.246, Adjust R ² =.235, F=23.483, P<.000						

*p<.001, **p<.05

Table 7: Regression Analysis of H-2

Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Customer Satisfaction	Emotional Intelligence	.100	.047	.152	2.138	.034**
	Job Satisfaction	-.020	.042	-.029	-.465	.642
	Role Clarity	.259	.056	.329	4.613	.000*
R=.424, R ² =.180, Adjust R ² =.168, F=15.784, P<.000						

*p<.001, **p<.05

Table 8: Regression Analysis of H-3, H-4, H-5

Dependent Variable	Independent Variable	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		

Customer Satisfaction	Service Quality	.294	.057	.329	5.141	.000*
	R=.329, , R ² =.108, Adjust R ² =.104, F=26.434, P<.000					
Customer Loyalty	Service Quality	.389	.061	.394	6.334	.000*
	R=.394, , R ² =.155, Adjust R ² =.152, F=40.114, P<.000					
Customer Loyalty	Customer Satisfaction	.643	.061	.583	10.589	.000*
	R=.583, , R ² =.340, Adjust R ² =.337, F=112.124, P<.000					

*p<.001

CONCLUSION

The purpose of this study is to explore the relationships between service attitude, service quality, customer satisfaction, and customer loyalty, and to explore the potential factors of employee service attitude affecting the service quality and customer satisfaction. This study examines five star hotels in Tianjin and surveyed hotel employees. The hypotheses were proposed to examine the relationships between the factors, and the findings suggested not all of them were supported. Emotional intelligence and role clarity were significant factors on service quality and customer satisfaction. On the other hand, job satisfaction was not supported to be a factor on service quality and customer satisfaction. It was found service quality and customer satisfaction both had positive effects on customer loyalty.

For the use of the hotel practitioners, the findings of the study may offer useful information when performing their jobs, or making work programs. This study might probably be a reminder to human resource managers the importance of hiring the right people to do the right work for the success of hotel operations. It is clear not only China's booming economy drives the promotion of hotel performance, but the employees bring the achievements. The study was conducted in one location in China, so the study may be expanded to other regional locations, which may offer some regional differences. In addition, the study was applied to the five star hotels. Comparison can also be made by collecting data from three and four star hotels, considering possible differences in the service attitude of employees by hotel ratings.

REFERENCES

- Bowen, J. T. & Chen, S.L. (2001). The relationship between customer loyalty and customer satisfaction. *International Journal of Contemporary Hospitality Management*, 13(4), 213-217.
- Boxall, P. & Purcell, J. (2003). *Strategy and Human Resource Management*. New York: Palgrave Macmillan.
- Brady, M. K., Jr., Cronin, J., Jr., & Brand, R. R. (2002). Performance-only measurement of service quality: A replication and extension. *Journal of Business Research*, 55, 27-31.
- Caruana, A. (2002). Service Loyalty: The Effects Of Service Quality and the Mediating Role of Customer Satisfaction. *European Journal of Marketing*, 36 (7/8), 811-828.
- Chebat, J. C., Babin, B., & Kollias, P. (2002). What makes contact employees perform? Reactions to employee perceptions of managerial practices. *Journal of Bank Marketing*, 20(7), 325-332.
- Choi, J.G. (2011). *Introduction to hotel management*. Baeksan publishing: Korea.
- Geller, A. N. (1985). *Cornell Hotel and Restaurant Administration Quarterly*, 25(4), 77-81.
- Gronross, C. (1983). *Strategic management and marketing in the service sector*. Marketing Science Institutes working paper series. Cambridge, MA: Marketing Science Institute.
- Kandampully, J. & Suhartanto, D. (2000). *Customer loyalty in the hotel industry: the role of customer satisfaction and image*. MCB UP Ltd.

- Pfeffer, J. (1998). *The human equation: Building profits by putting people first*. Boston: Harvard Business School Press.
- Prince, J.T. & Simon, D. H. (2009). A Comprehensive Review of Multimarket Competition Research. *Journal of Management*, 39(1), 76-109.
- Qu, H. & Tsang, N. (1998). Service Quality Gap in China's Hotel Industry: a Study of Tourist Perceptions and Expectations. *Journal of Hospitality & Tourism Research*, 22(3), 252-267.
- Selnes, F. (1993). An examination of the effect of product performance on brand reputation, satisfaction and loyalty. *European Journal of Marketing*, 27(9), 19 – 35.
- Spinelli, M.A. & Canavos, G.C. (2000). The Effect of Management Commitment To Service On Employee Service Behaviors: the Mediating Role of Job Satisfaction. *Cornell Hospitality Quarterly*, 41(6), 29-33.
- Tornow, W.W. & Wiley, J.W. (1991). Service quality and management practices: a look at employee attitudes, customer satisfaction, and bottom-line consequences. *Human Resource Planning*, 14(2), 105-15.
- Wong, A. & Sohal A. (2003). Service quality and customer loyalty perspectives on two levels of retail relationships. *Journal of Services Marketing*, 17(5), 495 – 513.
- Zeidner, M., Matthews, G. & Roberts, R.D. (2004). Emotional intelligence in the workplace: a critical review. *Applied Psychology: An International Review*, 53(3), 371-99.

CONTEMPORARY PROGRAMMES OF GOOD GOVERNANCE, ECONOMIC RESTRUCTURING AND THE NEW PUBLIC MANAGEMENT TRAJECTORY IN SOUTH AFRICA: CHALLENGES AND ISSUES OF THE (NyGPyramid) MODEL

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ABSTRACT

In the last two decades an array of management techniques, practices and programmes have been adopted and implemented by most governments to ameliorate public administration. This was principally because most governments got ensnared in huge debts, operational inefficiency, and ineffectiveness in service delivery including lack of accountability from political elites and public servants. These problems emanated from the quaint methods of fiscal management that were implemented and practised resulting in rampant corruption and feeble public services. This led to widespread disgruntlement and demand for good governance hence the rise of the New Public Management (NPM). The (NyGPyramid) model argues that South Africa like most countries in the region has an endemic problem of poor governance owing to the existence of feeble corruption watch structures and enfeebled governance programmes in the country.

INTRODUCTION

Theories like public choice theory and principal-agent theory propelled the rise of the New Public Management (NPM) with its consonant reforms and practices of economic restructuring programmes. The colonial-independence-globalization theory also gave impetus to the emergence of the NPM theory for most former colonies like South Africa which had colonialism of a special type. Most African countries including South Africa have socio-political and economic conditions different from their Western counterparts because of decades of colonialism and apartheid and therefore experienced NPM uniquely. The programmes of good governance and economic restructuring pursued by South Africa in the post apartheid epoch reflect a particular uniqueness that emanates from its apartheid past. The public policy implications of the NPM are critical in terms of the (NyGPyramid) model critic. The government of South Africa, in the formulation and implementation of public policy must realize that the private sector approach to macro-economic state management has its shortcomings largely particularly because it has a Social Contract and not a Profit Contract with the citizenry. The high level of underdevelopment that is perpetuated and propelled by poor governance and systemic corruption militate against attainment of good governance. According to the (NyGPyramid) model good governance for most former colonies is imperative but the greatest challenge is that most African leaders feel entitled to lead for longer periods, have a greater propensity to illegally purge proponents of opposition politics and to influence creation of a flaccid governance policy frameworks and structures.

Public management has witnessed so many changes since the 1980s. Critical debates on good governance and its requirements have precipitated novel approaches to public sector management reforms. Governance failures and endemic corruption in most post-colonial African states propelled debates on new forms of governance. Most governments are personalized and are characterized by systemic corruption, nepotism, bureaucratic red tape and lack of proper delegation leading to one-man rule. Principles of good governance are totally and absolutely lacking. The World Bank recognizes the following four elements of good governance: a) Public sector management emphasizing the need for effective financial and human resource management through improved budgeting, accounting and reporting and rotting out inefficiency particularly in public enterprises (through restructuring); b) Accountability in public services, including effective accounting, auditing, and decentralization and generally making public officials responsible for

their actions and responsive to consumers; c) A predictable legal framework with rules known in advance (a reliable and independent judiciary and law enforcement mechanisms) and d) Availability of information and transparency in order to enhance policy analysis, promote public debate and reduce the risk of corruption (World Bank, 2002).

Governance emphasizes on ameliorating public sector management systems to enhance efficiency, effectiveness, productivity and competitiveness in service delivery. Thus, in good governance prescriptions public management reforms are a key aspect in the quest for market-based and private-domain-based paradigms to public sector management with a flavor called New Public Management (NPM). NPM has characteristics rooted in private sector frameworks of competitiveness, entrepreneurialism and customer satisfaction. In fact NPM is a label utilized to depict a managerial culture that emphasizes the centrality of the citizen or customer as well as accountability for results. It is a set of broadly similar administrative doctrines which were the focus of public administration agenda of most Organization for economic Cooperation and Development (OECD) countries from as far back as 1970 (Hood, 1991). The key components of the NPM may be put into two broad classes namely, those that emphasize managerial improvement and organizational restructuring, and those that emphasize markets and competition. Improved efficiency, greater competitiveness and accountability are the overriding aims of public sector reforms in South Africa since 1994. Strengthening anti-corruption mechanisms and institutions has been another important development in an attempt to reform. South Africa also made efforts to restructure most State Owned Enterprises (SOEs) to improve their financial and economic performance especially after 1997. It is significant to note that contemporary reforms have largely focused on the public sector with government aiming to introduce greater effectiveness, transparency, accountability and efficiency in the public service. Public sector restructuring and in particular restructuring of State Owned Enterprises has thus become not only a global phenomenon, but an integral part of the South African economic culture. This paper explores the programmes of governance, economic restructuring and the NPM against the backdrop of the (NyGPyramid) model in South Africa.

BACKGROUND

Governance is the practice and exercise of power in decision making in all spheres of government. Governance involves different stakeholders in the public policy arena ranging from the ruling political elites, the private sector, and supranational organizations like the World Bank, IMF, the WTO and the UN. In South Africa, government is comprised of three spheres, namely National, Provincial and Local government. South Africa has nine provincial governments and a plethora of local municipalities, which are both urban and rural. Municipalities govern on a four year term basis and run local affairs subject to national and provincial legislation but the latter may not compromise or impede a municipality's right to exercise its powers or perform its functions. In line with the principles of cooperative government, national and provincial government spheres are constitutionally mandated to strengthen municipalities' capacity to engage in local governance. However, metropolitan municipalities like Ekurhuleni Metro, EThekweni Metro and Tshwane Metro, Nelson Mandela Metro, Cape Town and Johannesburg Metro Municipalities have municipal executive and legislative authority in their juridical localities hence are at liberty to utilize the mayoral executive system or committee system.

After the restructuring of local government around 2005, South Africa had about 284 municipalities (Stats: SA, 2005). These municipalities play a key role in local government particularly in the delivery of public services. Nevertheless, weaknesses in services delivery manifest themselves easily at local level because local government has immediate responsibility to provide services that are mostly basic to local communities. Ineffectiveness and inefficiency in governance is felt at the local sphere of government than at the national, largely because the welfare of the citizens in these communities depends on the decisions made by local government.

UNDERSTANDING GOVERNANCE

The World Bank defines governance as the manner in which power is exercised in the management of a country's economic and social resources. The World Bank has thus identified three distinct aspects of governance namely: a) The form of political regime; b) The process by which authority is exercised in the management of the country's economic and social resources for development; and c) The capacity of government to design, formulate and implement policies and discharge functions (World Bank , 2002).

On the other hand, UNDP views governance as the exercise of economic, political and administrative authority to manage a country's affairs at all levels. UNDP posits that governance comprises mechanisms, processes, and institutions through which citizens and groups articulate their obligations and mediate their differences (UNDP, 1995). From the OECD perspective, governance denotes the use of political authority, and exercise of control in a society in relation to economic development (OECD, 1995). Thus, all these definitions encompass the role of public authorities in establishing an environment in which economic operators function and the nature of the relationship between the ruler and the ruled. For instance, in South Africa the tripartite Alliance of the African National Congress (ANC), South African Communist Party (SACP) and Congress of South African Trade Unions (COSATU) exercise considerable influence over policy issues even though at times they differ substantially as exemplified by the debate on nationalization of mineral resources.

Governance concepts mark a shift away from state control and state interventionist models of government to a minimalist state that is only concerned with provision of basic goods and services such as defense, education and health (Mothusi & Dipholo, 2008). It is significant to note that in most Third World countries like South Africa, the ruling elite tends to assume absolute power and authority in the governance process. Thus, dissenting views are often squashed. Domination by a single political party has led to political elites staying in the governance seats for a considerable length of time. For instance, in Angola the president has ruled for many decades in excess of generally accepted two terms of five years a term. In Namibia the former President extended his two terms by another term after amending the constitution. Most of these leaders see themselves as royals as opposed to elected officials and therefore want to govern for a lifetime resulting in failed states due to a combination of factors such as outright failure to govern, corruption, complacency and so forth.

Perspectives on the emergence of governance can be traced at the country level to a disgruntlement with state–domination models of economic and social development so prevalent throughout the socialist bloc and much of third world in the 1950s, 1960s and 1970s. At the international level, global governance, can be traced to a growing dissatisfaction among streams of international relations with the realist and liberal–institutionalist theories that dominated the study of international organization in the 1970s and 1980s (Weiss, 2000).

GOOD GOVERNANCE: SOUTH AFRICAN PERSPECTIVES

Good governance is expected to propel economic growth and development. From a critical perspective, South Africa is a middle income country with pockets of first world characteristics, such as infrastructure and some extremely opulent segments of the population. On the other hand, the majority of people constituting more than 85% of the country's population who live in the rural areas are extremely poor. This situation is not likely to change unless principles of good governance are practiced at all spheres of government and in all state institutions including its public enterprises. Good governance entails competent management of state resources be they natural, physical and financial as well as greater accountability by the government.

Through the Reconstruction and Development Programme (RDP), the government of South Africa has built and distributed many houses for the poor although the programme is dogged by institutional and systemic corruption in the actual construction as well as the allocation of the RDP houses. Nepotism is also rampant and has negatively affected the judicious allocation of RDP houses to the poor in provinces like Eastern Cape, Limpopo Mpumalanga and KwaZulu/Natal. The awarding of tenders for government projects in South Africa has been heavily criticized by scholars for being corrupted by a few political elites for personal benefits. South Africa has been criticized for corruption that is widely practiced in all spheres of government especially during the post–Mandela era. When corruption, either institutional or systemic, is left unchecked by a country, the result is poor governance.

KEY ELEMENTS OF GOOD GOVERNANCE

Political Principles

Good governance is based on the establishment of a) representative and an accountable form of government; b) Good governance requires a strong and pluralistic civil society, where there is freedom of expression and association; c) Good governance requires good institutions – sets of rules governing the actions of

individuals and organizations and the negotiation of differences between them; d) Good governance requires the primacy of the rule of law, maintained through an impartial and effective legal system; and e) Good governance requires a high degree of transparency and accountability in public and corporate processes (Downer, 2000).

Economic Principles

Good governance requires policies to promote broad-based economic growth, a dynamic private sector and social policies that will lead to poverty reduction. Economic growth is best achieved in an efficient, open, market based economy; b) Investment in people is high priority, through policies and institutions that improve access to quality education, health and other services that underpin a country's human resource base; c) Effective institutions and good corporate governance are needed to support the development of a competitive private sector. In particular, for markets to function, social norms are needed that respect contract and property rights; and d) Careful management of the national economy is vital in order to maximize economic and social advancement (Downer, 2000).

Good governance differs from one country to the other. In the same way, good governance issues and priorities differ from one political culture to the other.

THE NEW PUBLIC MANAGEMENT (NPM) CONCEPT

Globally NPM emerged in the 1980s as benevolent critic to the traditional public administration. Prior to prior the emergence of NPM paradigm, public administration was seen as the most rational avenue for managing the affairs of the public. However, Osborne and Gaebler (1992) argued that there was a need to reinvent government and harness the entrepreneurial spirit to transform the public sector and later "banish the bureaucracy". This pointed clearly to the need to restructure government bureaucracy to promote productivity, competitiveness, and efficiency and effectiveness.

In South Africa, bureaucratic red tape is affecting most government departments. Since the early 1990s, South Africans across the political and professional divide have expressed grave concern about governmental efficiency, effectiveness and competitiveness in service delivery. With the creation of a single public service after 1994 that resulted from the merging of the four homelands of the Transkei, Bophuthatswana, Venda and Ciskei that were established by the apartheid regime for black people and the self-governing territories, government bureaucracy became too large and extra-ordinarily hierarchical. Public Administration became a source of poor service delivery.

It is worth noting that South Africa embraced the democratization process as an impetus for public sector reforms and liberalization of the markets. Thus, the process of decentralization was formalized with the constitutional establishment of local government and provincial governments. The rationale for decentralization is that local government is closer to local communities hence better placed to respond to their needs timely. However, between 1994 and 2010 the South African government has failed to take full advantage of the new wind of change thrust upon by the NPM vibe. Thus, South Africa still suffers from bureaucratic red tape, systemic corruption, inefficiency, ineffectiveness, poor service delivery, poor accountability and nepotism particularly in the award of government tenders to political dynasties of former liberation movements who claim their legitimacy from the liberation struggle. Due to this Liberation-Dynasty Syndrome(LDS), appointment of senior personnel especially at the level of Director-General, Deputy Director General and even at Chief Director is not based on merit. Thus, in most departments the whole operational stratum is politically corrupted leading to low productivity as a result of shortage of skills. This syndrome also affects the way procurement is done as exemplified by the recent police buildings saga which led to the withdrawal and removal of the Police Commissioner from the office and the former minister of public works in South Africa.

Essentially, NPM is a management culture that emphasizes the centrality of the 'customer', as well as accountability for results. The main objective of implementing NPM is to achieve more transparency, more efficiency and more quality as well as reduction of expenses. As a tool of public sector reform, NPM consists of several elements. Reformers from all parts of the world can avail all these elements as fundamental tools in transforming the public sector. These elements include the following:

- a.) Lean state – reduced tasks performed by state; b) Separation of decision making levels – separation of the strategic from the operative level: politics decides the what, administration the how; c) Lean

management – combination of management by objectives, flat hierarchy, projects management, performance related payments, modern methods of leadership; d) New services attitude – customer orientation: satisfaction in the center of all consideration, behavioral changes; e) New model of control – steering by clear targets, measurement of results, transparency of resources allocation; f) Decentralization – tasks ,responsibility, competence and budget in the hand of the projects manager / department manager; g) Quality management – ensure high service quality through qualification, competition, transparency; and h) Product approach – describing all administration services as “products” highlighting factors such as: features, cost, needed resources, and time to deliver (Teehankee, 2003).

Productivity, efficiency, effectiveness and competitiveness are not immediate priorities of the public servants in South Africa. Public choice theory contends that public administration is very slow and suffers from lack of greater responsiveness, allocative inefficiency, distributive incapability and weak re-distributive efficacy in South Africa. The principal–agent theory argues that the public (as principals), on whose behalf politicians and bureaucrats (as agents) are supposed to govern, is unable to hold the latter accountable because of insufficient information, (information asymmetry), incompleteness of the contracts of employment and the problems of monitoring behavior (Larbi, 2003). The public sector under performs because state officials pursue their narrow self-interests rather than the public interest. It is therefore difficult to demand accountability and good performance from the public servants (agents) because of the monopoly of public services, imperfect information about the services and about the interest of public employees and the huge transaction costs that would be involved in the efforts to write and monitor complete contracts (Larbi, 2003). It is critical to foster competition in the delivery of public services and reduce monopoly of the traditional government on public services. Larbi (2003) concedes that the result of the above drivers for change is that the role and institutional character of the state have been under increasing pressure to be more market-oriented and management-oriented with the emphasis on doing more with less (Larbi, 2003).

The traditional model of organization and delivery of public services based on the principles of bureaucratic hierarchy, planning, centralization, direct control and self sufficiency is being replaced by the NPM model (Larbi, 2003). The policy framework in South Africa is a graveyard that officials and people walk on without realizing it unless and until they fall on top of a skeleton. There are policies that are very contradictory and inconsistent with a developmental state trajectory with many being formulated in isolation with one another with particular regards to their objectives and implications. This is poor governance at its best. Many policies are not sustainable, not futuristic and environmentally insensitive largely because they are not based on realities on ground but rather on political expediency and convenience. Another conjecture which stimulated and propelled the rise of the NPM is what may be termed the colonial-independence-globalization phenomenon which traces the philosophy of public administration in South Africa from the colonial period through to the present day. This perspective contends that colonial apartheid public administration was very rigid, hugely- bloated, and acutely geared towards material exploitation and extraction of resources and creations of colonial markets, with very little interest on improving the quality of life for the colonized. This was achieved mainly through institutionalized autocratic administration. From Anglo-phone Africa, Franco-phone and to Luso-phone countries dictatorial administration of the proportions of a police state was common. In particular, apartheid South Africa practiced autocracy. Racial segregation did not permit equitable, transparent, effective and competitive allocation and management of public resources. Public administration served narrow and rigid interests.

The urge to adopt NPM principles at independence was apparent with the adoption of the democratic and transparent constitution of South Africa. Thus, decentralized spheres of government were adopted to democratize public administration and give South Africa a renewed impetus for good governance. The new nine basic values and principles governing public administration were incorporated in the new constitution. The Public Finance Management Act of 1999, the Preferential Procurement Policy Framework Act of 2000, the Preferential Procurement Regulations of 2001 and the Municipal Finance Management Act of 2003 are all pieces of legislation which embrace the principles of the NPM trajectory. The wave of globalization also injected added impetus for the rise of NPM theory. From the colonial apartheid public servants to post independence civil servants, the need to globalize public services meant accepting the NPM. Global best practice became the brazen buzz word amongst government bureaucrats and consultants. The shift from Reconstruction and Development Program (RDP) to GEAR (Growth Employment and Redistribution) and New Growth Path is a clear sign of the victory of NPM principles in the new democratic South Africa. Given the foregoing it is clear that the colonial-independence-globalization phenomenon has taken the NPM paradigm to novel levels in the history of public administration. In a bid to ameliorate service delivery

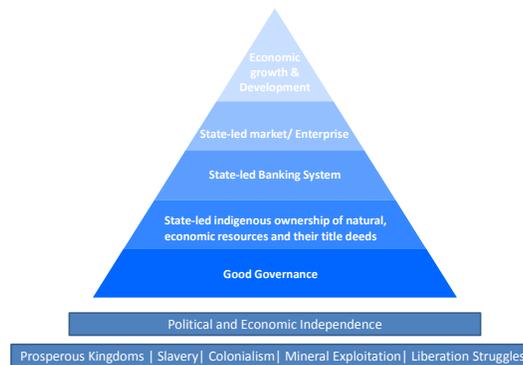
efficiency, effectiveness, productivity and competitiveness the post independence bureaucrats have no choice except to adhere to global best practice which is NPM trajectory.

THE (NyGPyramid) MODEL

The (NyGPyramid) theory as depicted by the diagram below stipulates that within the African continent good governance programmes are difficult to conceptualize, implement, monitor and evaluate because of the nature of their erstwhile colonial and apartheid political economy and their pre-colonial political and administrative architecture. The biggest challenge to governance in South Africa and the continent is the mindset of the liberation leaders from ruling liberation parties themselves. The post-colonial and post-apartheid ruling oligarchy while they are elected through normal democratic channels, they are not inclined towards power sharing and multiparty democracy. Most post colonial post apartheid states are either de facto one party states or de jure un democratic. South Africa has proved to be a de facto one party state with the ruling ANC/SACP/COSATU alliance dominating the governance structures in the country and state organs. Having been supported by the Communist/Socialist Bloc during the liberation struggle the liberation party tends to adopt similar policies to the countries that sponsored the liberation struggle. Most Leaders in the alliance see themselves as Kings and the electorate as their subjects hence they stay in the governance seat for many years and ending up incurring serious public policy blunders. The model also argues that because South Africa is not yet politically completely liberated because of the Codesa compromises it is difficult for the post-apartheid government to fully practice democratic governance and even to conceptualize a good governance framework that is not enfeebled by the ruling political oligarchy (RPO), in pursuit of their gains and ambitions. The focus for the (RPO) in South Africa is on amassing political power across the whole country and to politically liberate all the provinces in the country which has proved futile for now because of the DA, Democratic Alliance, influence in Meyerton and the Western Cape. For now the focus is not on good governance but is on gaining political power. South Africa is not yet economically liberated. The ownership of the economy is in the hands of 6% the population leaving the majority extremely poor. In most cases the multinational companies which own the economy repatriate their profits and do very little in terms of financing good governance initiatives. The result is that the post-apartheid government has very little revenue to finance good governance initiative in the country.

With regards to the public enterprises restructuring the model argues that the state should own the public resources and generate employment and revenue for the state. This model believes that the Norway approach to macro-economic management can go a long way in economic growth in the country. The model believes in majority government share ownership in state businesses because governments have a public responsibility to the citizenry. The model suggests that government should not abdicate its responsibilities to the private sector. It argues that a government department is not a private company and therefore is not supposed to work in a similar fashion. The focus of government is not profit but welfarist. This model believes that while efficiency, effectiveness, productivity, profitability and competitiveness are critical values government has a social contract and not a profit –contract with the citizens. In fact during the liberation struggle the citizens were promised a democratic social contract and not a profit contract by the ANC, PAC, SACP and AZAPO. The manifestos of all these liberation movements and their armed wings were not profit-driven. The model concedes that the NPM theory has had mixed fortunes in its attempts to influence government to be run in a private sector way. Government has a welfare mandate that is why according to this theory the state must lead economic growth and development initiatives in South Africa. While the NPM believes in free market approach, the (NyGPyramid) believes in a state –driven paradigm that is goal –directed towards economic growth and development. South Africa is using a mixed economic system approach but with more free-market characteristics. (which is the reason why 94% of the population is in poverty and depending on government grants). In short the (NyGPyramid) model refutes the view that economic restructuring of state assets and the NPM trajectory are the only avenues of enhancing economic virility in a country. Apartheid legacy, corruption by the Black Economic Financial Aristocracy (BEFA), and the post-apartheid (RPO), make good governance impossible in South Africa. The state has a critical role to play in the affairs of the country as compared to the private sector. The pyramid is very clear which path the country should assume towards attainment of economic growth, development and good governance. (see the model below)

(NyGPyramid) Model



The (NyGPyramid) model has been articulated clearly in terms of its critic to good governance, restructuring and the NPM path in South Africa.

RESTRUCTURING OF STATE OWNED ENTERPRISES IN SOUTH AFRICA

The constitution of the Republic of South Africa requires the state to engage in pro-active action in the process of socio-economic growth and creation of social balance in South Africa. The constitution makes it clear that the state can make reforms as far as macro-economic growth is concerned. State Owned Enterprises (SOEs) in South Africa play a pivotal role in the process of economic development. Major state-owned-Enterprises in the transport, telecommunications, energy and defence must support the vision of the state towards global economic competitiveness, competency, competition and development. Success stories from countries that achieved unprecedented levels of economic growth such as the South East Asian Tigers have pushed the rest of the developing world into accepting the idea of state assets restructuring as a means of improving their efficiency (Naledi, 1999). From the forgoing it is clear that restructuring is a key feature of the NPM theory. Since 1994, the goals of restructuring have been embraced to address problems of inefficiency and ineffectiveness in the public sector, though government's objectives of economic development have been refined from time to time. The objectives for restructuring reform are inter alia;

- a) To facilitate economic growth;
- b) To fund the RDP (Reconstruction and Development Programme);
- c) To create wider ownership in the South African economy through black economic empowerment and boosting the small and medium enterprise sector;
- d) To mobilise private sector capital;
- e) To reduce state debt (proceeds may be used to reduce state debt from the apartheid era);
- f) To enhance the competitiveness of state enterprises (open up accessibility to global markets);
- g) To promote fair competition;
- and h) To finance growth and requirements for competitiveness (Policy Framework, 2000).

These objectives clearly show a commitment by the government to adhere to the principles of the NPM and good governance at enterprise level. The objectives are a mirror reflection of utmost commitment to improving the economic and public sector landscape. There is an inescapable demand for new financing through different forms of domestic and foreign partnerships to promote infusion of new equity capital and especially technology. It should be emphasized that growing enterprises are essential to ensure job security for the employed and to generate new employment opportunities for the unemployed (Policy Framework, 2000). It is important to note that economic growth and redistribution are central to the government objectives. The restructuring of state-owned enterprises (SOEs) is expected to lead to weakening of state control and authority over the provision of services, what may be called the thinning of the state (Terry, 2005). It is expected that the reform will capacitate markets and improve the delivery of services. Most state-owned enterprises in South Africa find themselves in huge debts hence the need to restructure to cushion them against further indebtedness while at the same time creating economically viable entities. Once the state asset is debt-free it is able to participate in economic development without restraint because its financial base would be healthy.

However, development cannot be measured only by financial criteria and restructuring is not a means of improving government finances and enterprise at the expense of the poor (ANC, 1994). Rather, the success of restructuring will be measured by its contribution to improving the standard of living of the South African citizens. The state has created an enabling framework such as regulatory reforms and institutions, which facilitates the process of the restructuring of state-owned enterprises and ultimately economic development. State Owned Enterprises (SOEs) play a crucial role in the current phase of economic restructuring where the focus shifts from macro-economic stability to the development of a sustainable growth trajectory.

Overall, restructuring of State-Owned Enterprises seeks to enhance greater accountability and transparency which is clearly a feature of the NPM approach (Naledi, 1999). On the social front, social imperatives include growth in employment, wider ownership and participation in the South African economy. Private public infrastructure partnerships in many sectors have already been manifested in the partial privatisation of Telkom, ACSA and South African Airways (SAA). Thus, State Owned Enterprises (SOEs) represent a critical element of the South African economy. Through the instrumentality of the restructuring programmes, the government of South Africa aims at creating a market-driven reform and economic milieu, largely supported by private, public and social capital (Policy Framework, 2000). This process attracts investors locally and hemispherically and competition forms a central element in the restructuring of State Owned Enterprises. Given the prevalence of residual natural monopolies in (SOE) sectors and the size of (SOEs) in relation to potential local competitors, the aim of government is to ensure that restructuring leads to greater competition with an appropriate degree of regulation. (New Agenda, 2002)

CONCLUSION

This paper has explored the concepts of governance, good governance, new public management, restructuring initiatives and the (NyGPyramid)model. However, the greatest irony of our times is that while the government of South Africa makes remarkable strides to embrace the principles of the New Public Management thus reforming the public sector, institutionalised and systemic corruption that is endemically entrenched in government defeats the purpose of reform. Many members of the PRO, BEFA and civil society elite collude in defrauding government and the general public. As a result and like in most emerging economies, South Africa has serious problems of lack of good governance. The rule of law should be observed if good governance is to be entrenched in the South African culture. The Liberation–Dynasty Syndrome (LDS), has negatively affected the theory and practise of public administration and management in South Africa because elite segments of the public service who come from the liberation background dominate the appointment process of senior managers in the post-apartheid epoch through the so called cadre deployment policy of the ruling party. In most cases these cadres are qualificationless but possess political credentials including having been in exile in countries like Zambia, Tanzania, Mozambique, Cuba, Germany, UK, USA, Botswana, Zimbabwe, Lesotho Swaziland, Lybia, Angola and former USSR. Thus, it is inherently difficult for qualified, competent and skilled people to work and contribute in the public service of South Africa. This challenge has to be tackled head-on in order to promote and sustain good governance in South Africa. The critic from the (NyGPyramid) gives some valuable insights into varying debates about NPM, restructuring and good governance in South Africa.

REFERENCES

- African National Congress. 1994. White paper on Reconstruction Development Program. Luthuli House. Pretoria.
- Downer, A. 2000. Good governance: Guiding principles for implementation. Canberra. USAID.
- Hood, C. 1991. A Public Management for all seasons? *Public Administration*. 69: 3-19.
- Kikeri, S., Nellis, J. & Shirly, M. 1992. Privatisation: The lessons of experience. Washington, DC, World Bank.
- Republic of South Africa. 2005. Statistics South Africa, Government Printer, Pretoria.
- Larbi, G. A. 2003. United Nations Research Institute for Social Development, Discussion paper 112.

- Mothusi, B. & Dipholo, K. 2008. Privatization in Botswana: The demise of a developmental state? *Public Administration and Development*. 28: 239-249
- National Labour and Economic Development Institute (Naledi). 1999. Restructuring of State of Assets. An Assessment. Naledi, Braamfontein.
- New Agenda .2002. Journal of Economic Policy, Capetown, Institute of African Alternatives
- OECD. 1995. Governance in Transition: Public Management Reforms in OECD. OECD Publishing
- Okafor, T. G. 2012. Public Sector Financial Records Management: A panacea for good governance. *An international journal of Arts and Humanities*. 1 (1): 68-78.
- Osborne, D and Gaebler, T. 1992. Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector. New York, Penguin Books
- Republic of South Africa. 2005. Statistics South Africa, Government Printer, Pretoria.
- Republic of South Africa & UNDP. 2000. Policy Framework: An accelerated agenda towards the restructuring of State Owned Enterprises. Ministry of Public Enterprises, Pretoria.
- Teehankee, J. C. 2003. New Public Management: Lean State, Lean Government, Seminar paper presented on February 9-16.
- Terry, L. D. 2005. The thinning of administrative institutions in the hallow state. *Administration & Society*. 37 (4): 426-444.
- United Nations Development Programme. 1995. Public Sector Management Governance and Sustainable Human Development. New York. UNDP.
- Weiss, T. G. 2000. Governance, good governance and global governance: Conceptual and actual challenges. *Third World Quarterly*. 21 (5): 795-814
- World Bank. 2002. Reforming Public Institutions and Strengthening Governance: A World Bank Strategy. New York.

READING HOFSTEDE'S TAXONOMIES: UK VS FRANCE, PROFESSIONAL BUSINESS COMMUNICATION

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ABSTRACT

This paper evaluates the extent to which Geert Hofstede's cultural values dimensions (or taxonomies) may contribute to effective relationships and minimise misunderstandings. In order to do so, examples of intercultural business interactions were used. Looking at two nations namely, UK and France, we have concluded that taxonomies may sometimes provide a practical vision for the way conflicts between people of different cultures may be prevented or understood, however, the application of these taxonomies have some limitations in relation to methodology used, national profiling, complexity of individual culture and non-cultural factors. Despite these limitations, Hofstede's taxonomies remain popular amongst intercultural communication researchers and consultants as it proposes a practical way to view and resolve culturally generated conflicts.

INTRODUCTION

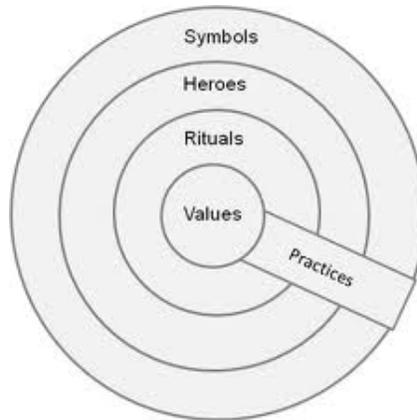
Wearing hijab is heavily regulated by law in France as opposed to the UK where it is tolerated within a corporate environment. This may be explained through the understanding of cultural differences, as this paper sets out to demonstrate. Often this paper's author come across students attempting to use the work of Cultural dimensions pioneered by Geert Hofstede in a somewhat abusive way, often missing the subtlety of language needed when using such data resulting in the stereotyping of entire nations. This in no way implies Hofstede's work is difficult to read, but its obvious popularity amongst students explains the following paper. The author do not pretend to summarise the entire work, but instead aim to propose one way of understanding Hofstede, Hofstede and Minkov's cultural value dimensions (1980, 2001, 2010) (henceforth Hofstede and taxonomies), with practical examples from France and the UK.

Following a brief introduction of the theoretical metaphor "culture as an onion", the idea of cultural membership and Hofstede's taxonomies are then introduced. The problems raised in this paper aims to examine the extent to which Hofstede's taxonomies can be used to facilitate effective relationships and minimise misunderstandings in communication between people from different cultural backgrounds. This will be done, firstly with a demonstration of how these taxonomies help minimise misunderstandings as part of intercultural communication using observational evidence from UK and France. Moreover, outlining these examples will highlight cultural differences even in neighbouring countries, moving away from the West/East or North/South dichotomy often used to present Intercultural communication. An outline of some limitations occurring when using these taxonomies will follow.

Defining Culture

Hofstede's definition of culture (fig.1 onion metaphor) implies the existence of four different layers with implicit values at the core centre with rituals, heroes and symbols as more explicit representations of practices.

Fig.1. Onion Metaphor



Source: – Hofstede’s Cultural Model (Hofstede, 2001: 11) ©Geert Hofstede B.V. quoted with permission

Hofstede’s onion metaphor implies the notion that invisible and implicit values, as outlined in section one, have an influence on visible and explicit behaviors where norms are what we expect from a particular culture. This model denotes that cultures have two sides, one hidden and one seen, with the hidden model, core values, according to Hofstede’s theory remaining unaffected by change. This static vision of the essence of culture is a theoretical construct that has been challenged, as we shall see in the second section of this paper. His theory of cultural taxonomies is based on the assumption that culture is learnt, as part of collective programming of minds, and no-one can escape it and consequently all aspects of our society including the workplace is affected. Cultural values are intrinsically the same but are often expressed differently. Culture is a complex concept that can be understood through memberships.

Cultural Memberships

According to Hofstede (2010), a person’s culture comes with membership to various groups. These groups can be formed at national, regional and international level; they can further be defined by gender, age, social class, ethnicity, language and organisations with some smaller than others. Social networks membership such as Facebook, LinkedIn and Twitter are new types of cultural groups. As we shall later discuss, defining an employee’s culture or culture profiling becomes very complex as membership to various groups can occur simultaneously but can also change with time so defining culture is increasingly difficult. Furthermore, his taxonomies are based on cultural membership at national level and if this is a practical choice, as we shall later argue, this does not take into account the complexity of cultures. The interaction between various cultures according to Hofstede (2010) leads to cultural shock. These cultural values therefore only become relevant when comparing the differences between two groups of culture, hence the significance of membership.

Hofstede’s Taxonomies

Taxonomies frameworks include those by Hall, 1990; House et al., 1997, 2004; Kluckhohn & Strodtbeck 1961, 1973; Schwartz 1994, 1997; Trompenaars & Hampden Turner 1993, 1997; Nardon and Steers 2009. However, Hofstede (1980) Hofstede and Hofstede (2001) Hofstede, Hofstede and Minkov works (2010) (henceforth Hofstede) remain one of the most criticised and studied (Dickson et al. 2003, Jose et al. 2006, Fang 2010), hence the wide literature available and another reason for choosing these taxonomies in the following paper.

His paradigm with two extremes provides a general tendency for each nation, which shows national preferences. This empirical study provides a statistical national scores ranging from 1 to 120 of each taxonomy allowing comparison between nations. In his latest updated publication of *Cultures and Organisations* (2010) Hofstede’s taxonomies, which will all be used in this paper, are:

5. Equality vs Inequality (Power distance);
6. Individualism vs Collectivism (Identity);
7. Masculinity vs Femininity (Gender);
8. Uncertainty Avoidance vs Tolerance (Truth);

- 9. Long-term vs Short-term (Virtue) and
- 10. Indulgence vs Restraint (Happiness).

Summary

As per Hofstede’s onion model, with values at its centre defining behaviours within each culture, a “collective programming of mind that distinguishes the member of one group or category of people from others” (Hofstede, Hofstede, Minkov 2010: Kindle Locations (174-175) defines national tendencies. Using a set of business examples from two different national cultures, we shall now present Hofstede’s taxonomies and then demonstrate how each may help with effective relationships and minimise misunderstandings in communication. Subsequently, we shall outline these taxonomy’s limitations.

USING HOFSTEDE’S TAXONOMIES

Power distance (Hierarchy)

According to Hofstede *Power Distance* (PDI) refers to “the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally” (2010: Kindle Locations 751-752). That is to say that within a culture the less powerful usually accept those in power.

Table 1. Comparison of Power Distance taxonomy between the UK, and France

Dimension/Nations	UK	France
Power distance	Inequalities should be minimised score 35	Inequality expected score 68

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For instance, as part of business interaction, a British company (with low score on power distance) with clients from France (with medium score on power distance), may want to factor differences in communication. In practical terms, that could be translated in the informal use of first name in email correspondence with clients in the UK (i.e. Dear John) which denote an effort to minimise inequality for no matter where you are in the hierarchy, your first name is used - although a more formal approach may be used when corresponding by letter. Whereas, when corresponding by email with French clients using the client’s title and surname (i.e. Dear Mrs French) is generally the norm. Knowing and using these subtle differences may help facilitate effective communication with clients from difference cultures, as both cultures would feel the appropriate rules of communication are used.

Generally as France has a higher PDI score than the UK, communication style will tend to be more formal in France than in the UK. In France you would be expected to show respect to those in higher positions and consult them about decisions. Subordinates would expect clear information and direction whereas a more relaxed approach would be expected in the UK. Taking into account Hofstede’s taxonomy of Power Distance, understanding the notion of (in)equality in France and in the UK may help facilitate effective relationships and minimise any misunderstanding as part of business communication.

Individualism – Collectivism (Identity)

According to Hofstede (2010) the paradigm of Individualism and Collectivism differs at national and individual level. At national level, the paradigm exists ‘between’ both whereas at an individual level the paradigm exists ‘within’ both. Here is the result of this taxonomy for France and for the UK.

Table 2. Comparison of Individualism vs. Collectivism taxonomy between the UK and France

Dimension/Nations	UK	France
Individualism (or IDV*)	High IDV* score 89	High IDV score 71

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*IDV = individualistic

For instance, as part of business interactions and although both IDV scores are high, France's score is lower than the UK. This subtle difference can be seen in the way decision making can take longer in France compared to the UK and the notion of hierarchy being more predominant in the former. In France, the emphasis would be on group effort rather than individual effort which is commonly predominant in the UK. This notion of "I" prevailing in the UK would move towards a "we" in France. For instance in a business meeting in the UK, unlike France, there would be no surprise if a participant stands out from the crowd. In France, an individual's promotion will generally relate to years of contribution to the team rather than individual achievements. The notion of 'group' is generally favoured in France compared to that of the 'individual' in the UK. When both countries have a general preference towards individualism, team work may become an issue to address and encouraged through individual incentives.

Masculinity vs. Femininity (Gender)

According to Hofstede (2010) the notion of Gender (Masculinity vs Femininity) differs from one culture to another and can be seen in the way assertive and modest behaviours are displayed and to which gender it is related. For men, masculinity at national level is when both genders have opposite behaviours i.e. the male being assertive and the female being modest whereas femininity at national level is when both genders display similarly modest behaviour.

Table 3. Comparison of Masculinity/Femininity taxonomy between the UK and France

Dimension/Nations	UK	France
Masculinity/Femininity	High Mas score – Masculinity score 66	Low Mas score- Femininity score 43

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In the UK, it is the opposite, being loud and competitive is not frowned upon even if it requires working longer hours and sacrificing family time when in France family time is generally valued. UK verbal communication would be direct as part of business interactions whereas small talks would be more appropriate in a French business setting, although direct questions are welcomed. Being modest as part of business interactions in France correlates with a low masculinity score.

Uncertainty Avoidance (UA) (Truth)

According to Hofstede's, UA refers to "the extent to which the members of a culture feel threatened by uncertainty or an unknown situation" (2010: Kindle Locations 2140-2141).

Table 4. Comparison of UA taxonomy between the UK and France

Dimension/Nations	UK	France
Uncertainty Avoidance	Low UAI* score 35	High UAI score 86

Source: Information extrapolated from Hofstede (2010) ©Geert Hofstede B.V. quoted with permission
*UAI = Uncertainty Avoidance Index

For instance, when attending a business meeting the degree of preparation will vary from the UK to France. In France, written communication, which is formal, is generally preferred as opposed to verbal communication. In the UK however, last minute preparations and sometimes little or no preparation is by and large unlikely to prevent a meeting from taking place, and loose instructions a deadlines are generally not an issue. Providing enough notice in France is widely seen as more of a requirement than in the UK, so is detailed instructions. This may also explain why wearing hijab is heavily regulated in France, as opposed to the UK. This could lead to decisions being made to standardise work processes in bureaucratic centralised French nation; whereas in the UK a decentralised system based on mutual agreement would be the preferred mechanism.

Long-term or Short-term (Virtue)

According to Hofstede “Long-term orientation stands for a society in which wide differences in economic and social conditions are considered undesirable. Short-term orientation stands for meritocracy, differentiation according to abilities” (2010: Kindle Locations 2690-2691). For him, this taxonomy derived from Eastern thinking, is more concerned by a search for *Virtue* rather than *UA*, which is concerned with *Truth*.

Table 5. Comparison of Long-term/Short-term taxonomy between the UK and France

Dimension/Nations	UK	France
Long-term (LTO)	Middle range score 51	High LTO score 63

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In both countries the above scores are very close; however France’s score for LTO is higher. Although, in both countries a wide difference in economic and social conditions are considered undesirable and in France this is generally even less desirable. Therefore, when doing business during a financial crisis UK is more likely to spend, invest and take risks compared to France where savings and delaying investment are more important. Signing a contract might take more time in France than in the UK, where more time would be spend in discussion. According to these scores, the *Virtue* of socialism is more prominent in France than in the UK which is more of a capitalist and risk taking nation.

Indulgence vs. Restraint (happiness)

According to Hofstede (2010) “Indulgence stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. At the other end of the scale, restraint reflects a conviction that such gratification needs to be curbed and regulated by strict social norms” (Kindle Locations 3057-3058). This is concerned with the notion of happiness.

Table 6. Comparison of Indulgence/Restraint taxonomy between the UK and France

Dimension/Nations	UK	France
Indulgence/Restraint	High Indulgence score 68	Middle range score 48

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For instance, business interactions in non-verbal communication such as, smiling when greeting clients would be the norm for nations scoring high indulgence such as the UK; whereas this can seem odd in France as you would not expect to be too friendly. Roles are also loosely prescribed in nations scoring highly; this may be exemplified by the open ended UK job description, which generally states “and any other duties”. In nations with lower score like in France roles would be strictly prescribed. This also may explain the flexibility in the UK employment market, in comparison with France where there is generally less mobility. Understanding these national preferences may therefore help facilitate effective relationships and minimise misunderstandings when communicating.

Table 7. Summary of practical examples of how taxonomies can help facilitating communication

Country/ Communication	UK	France
Verbal	Speak your mind, be assertive and competitive but diplomatic. Any other business can be discussed outside the meeting agenda. Stand out in meetings.	Speak your mind and ask direct questions, courtesy and formality are key. Ask direct questions. Stick to meeting agenda. Try to blend but avoid being too friendly.
Non-verbal	Make eye contact but not too prolonged as this can make the other person feel uncomfortable, smile	Make eye contact as this is viewed as being polite and honest, showing a degree of interest
Written	Diplomacy is important. use formal language but may use first name when emailing with clients	Written communication is preferred to verbal. Use formal language and always use title when emailing clients. Use job title.

Source: author's own compilations

As summarised with practical examples in table 7, taking into account the differences between different cultures at national level by using Hofstede's taxonomies, this may generally help facilitate relationships and minimise miscommunication between people of different cultures.

LIMITATIONS OF HOSFSTEDE'S TAXONOMIES

Limitation due to Conceptual Framework

As set out in the introduction, Hofstede's taxonomies conceptual framework is based on a static definition of culture with unchangeable core values at its centre. This theoretical construct on the resilient nature of culture values to change has been challenged for not being based on any empirical data (Ailon 2008, 2009).

Additionally, according to Hofstede his theory is not a finished product (2001, 2010) and can be improved, explaining the subsequent addition of cultural dimensions. Although, non-western constructs such as Eastern Yin Yang can propose an alternative vision to Hofstede's bipolar paradigm (Meyer 2006, Fang 2010) there are no similar empirical academic studies providing a large enough data sampling concurring with that of Hofstede's. Consequently, Hofstede's taxonomies are based on a western theoretical construct of culture that has no empirical likeness, hence the resounding advice is to use them with caution (Ailon 2008, 2009). Furthermore, culture has not one single definition and Hofstede's proposed definition is not the only way to understand it.

Limitation of Taxonomies at National Level

Hofstede's theory is based upon data collected at national level and that gives the impression that all nations are culturally homogenous. This assumption of cultural uniformity at national level has been challenged (Dickson 2003, Tung R L, Verbeke 2010). Hofstede (2010) agrees with this and warns about the differences between societies and nations using the latest as a practical group rather than a true representation of one particular culturally defined society. In other words, although he admits that nations do not provide an accurate vision of cultures, it is a practical way to collect data and apply a theory. He also mentioned in a 2013 YouTube video that his theory was applied to the different regions of Brazil and the results show more similarities between regions than differences. These result needs replication within different nations to show stronger validities. Additionally, despite being practical this national data sampling can lead to erroneous generalisation limiting the application of the score at national level, hence the methodological limitation of his research. To sum up, these taxonomies can be erroneously used systematically and without taking into account the complexity of each nation. That is to say, if a large amount of members in one culture is likely to fall into these taxonomies, many would not. In other words these taxonomies show the probability or the

likeness at a nation level. It would therefore be wrong to state that all of France is the same, although they are likely to prefer the same.

Furthermore, according to Hofstede (2010) national scores cannot be used at an individual level for stereotyping as they are to be used at national level. His reasoning is that culture is group construct. However his scores provide a national tendency and are not representative of every single individual, the chance is that for a number of individuals (forming another group) the score will not be applicable. Therefore, using national tendencies as proposed by Hofstede's taxonomies may not always facilitate effective relationships and so minimise misunderstandings. That is, when not taking into consideration the complexity of culture within each nation.

Limitation due Methodology Employed

In reply to critics of McSweeney (2002), Hofstede (2002) actually agrees that his survey and the taxonomies generated from them are not the only way to measure cultural differences. Data has been collected using a questionnaire, which comes with its own limitations. For instance, respondents may not provide an accurate view of the situation, or may want to present themselves in a certain way, leading to an inaccurate set of data affecting the accuracy of national scores. If, when Hofstede's taxonomies are used and the survey fails to accurately represent a nation, this will lead to an inaccurate vision of this nation, hence their methodological limitation and their potential practical limitation in facilitating effective relationships and minimise misunderstandings.

Limitation due to Measurement, Time and Space

Hofstede (2002) states that his taxonomies are based on timeless values refuting that old data may compromise them. However, a study by Maseland and Hoorn (2009) demonstrates that Hofstede's taxonomies are based upon measurement of practices (or marginal preferences) rather than measurement of values within one culture. According to this study what people desire and what actually takes place may sometimes differ, hence a limitation of Hofstede taxonomies. Moreover, Ailon (2008) stated there are no empirical studies taken over a long enough period to ascertain whether cultural values remain the same over a long period.

Additionally, although comprehensive, his data does not represent all nations and is therefore limited. For his initial study Hofstede (1980) provided national scores for 40 countries based on IBM's Managers and employees answers. Although the number of nations considered increased in subsequent editions, his initial study does not take into account people from various organisations thus limiting the impact of measurement and questioning the relevance of generalising what takes place at an organisational level to a national level (McSweeney 2002). Hofstede claims (2010) that other studies confirmed his dimension, yet there is a danger of generalising his vision of national culture to all organisations within all nations. In response to this, Hofstede himself came up with organisational cultural dimensions different from cultural national dimensions. This complexity within culture challenges the usage of national taxonomies to facilitate effective relationships and minimising misunderstandings between nations.

Limitation due to Situational Factors

Breakdown of communication and conflict may also result due to other non-cultural factors such as situational factors (Gelfand et al. 2007). Ignoring the contribution of non-cultural factors such as miscommunication due to failure of equipment used and/or individual physical attributes (such as health related hearing issues), which are non-cultural factors and using only Hofstede's taxonomies may not help the understanding of conflict resolution. Moreover, changes in society such as the increasing use of new technology may also affect taxonomies (Shane 1993, Fang 2010) as this affects the way people communicate which may in turn affect cultural practices. Not factoring in these situations when using Hofstede's taxonomies will not always provide an accurate vision and thus will not necessarily help facilitate effective relationships and minimise misunderstandings.

CONCLUSION

If taxonomies may be used to support effective relationships and help minimise misunderstandings in communication, they also have some limitations. In fact, the application and validity of these western biased theoretical constructs can be challenged as they are based on data collected at a point in time, albeit over a period, and within a Multinational. They may also be based on a vision of culture at national level, where situational factors are not taken into account. Consequently, we may deduct that Hofstede's taxonomies as he also puts it, are just one way of understanding relationships amongst people from different cultures.

Despite their limitations, these taxonomies remain valuable practical tools when looking at conflict that may arise between members of different cultural groups. We may therefore conclude, that these taxonomies when used as a practical tool may serve to promote effective relationships and minimise misunderstandings amongst people from different cultures. It is almost an impossible task to monitor if fewer misunderstandings arise from cultural differences resulting from using Hofstede's taxonomies. If the effectiveness of his theory remain to be seen, his work for greater understanding of cultural differences remains surely key to conflict resolution, explaining the reasons why it is greatly used to prevent and minimise misunderstanding as part of professional business communication.

Advice for Global Managerial Application

Translating Hofstede's theory into practices should be done with caution, as outlined in the above paper. That is to say that Global Managers should not only rely on systematic and off-the-shelves (ready-made) country's profiling sometimes generalising and misguiding them. To sum up, a suggestion to assist Global Manager is that in addition to nurturing cultural awareness, openness to communication is generally a starting point in preventing and minimising culturally generated misunderstanding.

REFERENCES

- Ailon, G. (2008) Mirror, mirror on the wall: culture's consequences in a value test of its own design. *Academy of Management Review*, 33:4, 885-904.
- Ailon, G. (2009) Who Is the Fairest of Them All? Galit Ailon's Mirror. A response by Galit Ailon to Hofstede's letter to the editor concerning her article "Mirror, mirror on the wall: Culture's consequences in a value test of its own design," in a previous edition of the *Academy of Management Review*. *Academy of Management Review*, 34:3, 571-573.
- Dickson, M. W., Den Hartog, D. N., & Mitchelson, J. K. (2003) Research on Leadership in a Cross-Cultural Context: Making Progress, and Raising New Questions, *Leadership Quarterly*, 14:6, 729-68.
- Fang, T., (2010) Asian management research needs more self-confidence: Reflection on Hofstede (2007) and beyond Asia Pacific. *Journal of Management*, 27, 155-170.
- Gelfand, M. J., Erez, M., & Aycan, Z., (2007). Cross-cultural organizational behavior. *Annual Review of Psychology*, 58, 1-35.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage Publications.
- Hofstede, G. (2001) *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations Across Nations* (2nd ed.). London: Sage Publications.
- Hofstede, G. (2002) Dimensions do not exist: A reply to Brendan McSweeney. *Human Relations*. SAGE Publications London, 55: 11.
- Hofstede, G. (2006) What did GLOBE really measure? Researchers' minds versus respondents' minds. *Journal of International Business Studies*, 37, 882-896.
- Hofstede, G., Hofstede, G. J., and Minkov, M., (2010) *Cultures and Organizations: Software of the Mind. Revised and expanded* (3rd ed, Kindle Edition). New York: McGraw-Hill USA.

José C. Alves, Kathi J. Lovelace, Charles C. Manz, Dmytro Matsypura, Fuminori Toyasaki, Ke (Grace) Ke, (2006) A cross-cultural perspective of self-leadership, *Journal of Managerial Psychology*, Emerald Group Publishing Limited, 21 : 4, 338 – 359.

Maseland, R., and Hoorn, A. V., (2009) Explaining the negative correlation between values and practices: A note on the Hofstede–GLOBE debate. *Journal of International Business Studies*, 40, 527–532.

McSweeney, B. (2002) Hofstede's model of national cultural differences and their consequences: A triumph of faith – a failure of analysis. *Human Relations*, 55, 89–118.

Meyer, K. E. (2006) Asian management research needs more self-confidence. *Asia Pacific Journal of Management*, 23, 119–137.

Shane, S. (1993) Cultural influences on national rates of innovation. *Journal of Business Venturing*, 8: 1, 59–73.

Taras, V., Kirkman, B. L., Steel P., (2010) Examining the Impact of Culture's Consequences: A Three-Decade, Multi-Level, Meta- Analytic Review of Hofstede's Cultural Value Dimensions *Journal Applied Psychology*, 95: 5, 888.

Tung, R. L., Verbeke (2010) *A Beyond Hofstede and GLOBE: Improving the quality of cross-cultural research* *Journal of International Business Studies*, 41, 1259–1274.

GLOBAL LEADERSHIP, CULTURAL INTELLIGENCE (CQ): HOW DOES NEUROSCIENCE FACILITATE OPPORTUNITIES TO IDENTIFY AND DEVELOP LEADERSHIP POTENTIAL?

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ABSTRACT

Global leadership and cultural intelligence are new themes in the study of leadership and intelligence. This research investigated the relationship between them through the lens of neuroscience. Seven experts were interviewed from each of the fields of global leadership, cultural intelligence and neuroscience. Based on those interviews and additional research, a developmental framework is proposed to identify, select and develop cultural intelligence in global leadership talent. The proposed model draws upon the insights brought to light during the interviews together with research on the effects of specific meditation techniques and other studies that show growth in emotional and social intelligence mapped to specific domains of influence: global, national, regional and local. Additional avenues of research are suggested to validate the model with more empirical evidence.

INTRODUCTION

There is a convergence of academic disciplines underway to adequately address the complexity of the globalized economy. Organizations spend a considerable amount of money and time to develop their internal talent to gain a sustainable competitive advantage. However, to succeed as a global leader, according to Ireland and Hitt (1999), strategic competitive advantage will derive from leaders who can adapt and thrive on the global stage with a more sophisticated set of skills. Identifying and developing global leaders with the right global leadership skills can make a significant difference to sustainable economic, environmental, and social prosperity.

Neuroscience is providing a persuasive platform to identify and determine leadership traits in the domestic sphere but it is the contention of this paper that a similar platform for global leadership has not been fully developed but is desirable to do so. The insights of neuroscience provide a firmer scientific foundation to interpreting the current social science on leadership, particularly in terms of effective development interventions. Understanding what works in the development of global leadership skills, particularly as it transforms brain behaviors, provides a stable platform around a global leadership development strategy. By aligning development strategies with the desirable brain behaviors indicated for global leaders, more successful and effective global leadership can be predicted. This paper addresses that alignment as it is revealed through the convergence of global leadership and cultural intelligence with the findings in neuroscience.

The aims of this paper were to synthesize a workable definition of global leadership effectiveness; assess the role of cultural intelligence in global leader effectiveness; evaluate the findings of neuroscience in identifying and developing cultural intelligence in global leader candidates; and propose a developmental strategy of cultural intelligence in global leader talent based on these findings. To address these aims, the research used grounded theory approach to data gathering through interviews with experts from the three areas outlined above to meet the following objectives: distinguish global from domestic leadership by reviewing the academic literature and interviewing experts in leadership and management; determine the competencies that impact leader effectiveness by analyzing the research data; analyze which metrics from the field of intelligence theory are most effective in predicting leader performance based on cognitive,

emotional, social, and cultural intelligences; determine the competencies derived from cultural intelligence that contribute to overall global leader performance; identify the findings in neuroscience that support leader performance, development of intelligence, and the mastering of competencies; and analyze the psycho-physiological metrics used to identify and assess cultural intelligence in global leaders. The contention of this paper is to show that neuroscience may provide more effective identification of cultural intelligence within global leadership candidates as well as to better understand brain behaviors that support cultural intelligence.

LITERATURE REVIEW

Global Leadership

Global leadership is an emerging discipline seeking to distinguish itself from domestic leadership. Gundling, Hogan and Cvitkovich (2011, p. 11) identify emerging markets, population growth, and the urbanization of Asia and Africa as three of the trends that are accelerating the need for global leadership. To distinguish domestic leaders from global ones, Mendenhall et al. (2012, p. 4) provide three dimensions of the global context: complexity, flow and presence. Complexity is the single most distinguishing variable between domestic and global scope. Global leaders are expected to handle multiple cross-cultural, geographical, and socio-political contexts which make their role more complex. Flow refers to boundary spanning and the information flow that global leaders have coming from different departments and jurisdictions resulting in a qualitative ‘richness’ to the information that is lacking in the domestic environment. Presence refers to the amount of time a leader must be physically *present* across “geographical, cultural and national boundaries” (Mendenhall et al., p. 6). Therefore the domestic context tends to be less complex, requires less flow with respect to information and hierarchies, and requires less *presence*, since many of the cultural, national and organizational characteristics are familiar.

Florida (2005, p. 48) notes that globalization does not equate to homogeneity. Indeed there are many differences where the leverage of global reach has not balanced trade, financial flows, intellectual property or urban versus rural disparity. The sensitivity required to appreciate global diversity shifts the *competitive* mindset of a domestic perspective to a more *collaborative* mindset of the global perspective. Or as Robinson and Harvey (2008, p. 466) discuss, a psychological evolution is needed to address cultural and global issues. Is there, as Robinson and Harvey propose, a psychological evolution that can be used to gauge the maturity of a global leader? Robinson and Harvey outline clearly delineated and increasingly mature concepts of self and others that are required to engage in more culturally diverse contexts. Summarizing, global leaders exhibit more global thinking (broad perspective) as well as sensitivity to finely nuanced differences of each locality. They are aware of the heterogeneity of the world.

Javidan, Teagarden and Boween (2010, p. 111) list a set of 76 attributes that are desirable in a global leader from each of the following categories: intellectual capital, psychological capital, and social capital as part of a ‘global mindset’ inventory. (Javidan, Teagarden and Boween, 2010, p. 111) The attributes confirm that a global mindset is comprised of competencies not necessarily associated with domestic leadership. Discerning how domestic and global leadership is identified is critical for leader development. From the review of the literature on global leadership, it is apparent that the context of global leadership is distinctly different from domestic leadership.

The Intelligences

General Intelligence (IQ)

General intelligence or cognitive ability has been the foundation upon which intelligence has been measured. This includes standard IQ tests. Largely because of how leader effectiveness has been measured and how intelligence has been measured, leader success was deemed to be dependent upon a leader’s cognitive ability. However, Judge, Colbert and Ilies (2004) reviewed the studies and how leaders were evaluated. The metrics were based on leader perception by their followers and not necessarily objective measures. In fact, Judge, Colbert and Ilies (2004) and Antonakis, Ashkanasy and Dasborough (2009) conclude that general intelligence (cognitive ability) can be a useful predictor of leader effectiveness when situations are not stressful and the leader is able to direct. However, in the real world of the demands of the 21st century, stress is a part of daily life and leaders must often *participate* in decision-making—not unilaterally *direct* it. Under

these conditions, research indicates that leaders with emotional and social intelligence are more effective in the perception of their followers as well as in objective measures.

Emotional Intelligence (EQ)

Support for multiple intelligences comes from Gardner's multiple intelligences model. This model is based upon empirical studies on the specific information each intelligence processes (Gardner and Moran, 2006, p. 228). Dependent on capability and perception, Gardner's model presents various intelligence types e.g Linguistic (words and language), Logical-Mathematical (logic and numbers), Musical (music, sound, rhythm), Spatial-Visual (images and space), Bodily-Kinesthetic (body movement control), Naturalistic (natural environment), Interpersonal (other people's feelings), and Intrapersonal (self-awareness). For example, linguistic intelligence is based on language processing which is quite distinct from the logical-mathematical intelligence which processes mathematical problems. Gardner's *intrapersonal* intelligence, for instance, operates on the internal dynamics of the individual—including empathy, self-regulation, goal setting and perseverance (Moran, 2009, p. 144). These qualities are reminiscent of Goleman's (1998, p. 95) description of emotional intelligence (EI) which he says includes: self-awareness, self-regulation, motivation, empathy and social skill. He adds that EI serves as a differentiator between two similarly cognitively capable individuals. Indeed, Goleman asserts that EI leaders and their divisions perform better. Walter, Cole and Humphrey (2011, p. 55) confirm that despite "conflicting perspectives on the definition and measurement of EI, and in the midst of a continued debate on EI's construct validity, empirical research on emotional intelligence and leadership has produced notable findings." Based on the empirical results, identifying various intelligences can prove to be significant to improving leader performance.

Social Intelligence

So far, the literature has substantiated that multiple intelligences can be defined based on context and the type of information being processed and that there is empirical research to support the theoretical models. The premise of social intelligence is that there are social signals that are managed differently than cognitive or emotional ones. Gardner describes (1983, p. 164) *interpersonal* intelligence as the facility to "notice and make distinctions among other individuals." However, developing effective metrics for that description has proved difficult. The meta-analysis studies on social intelligence by Murphy and Hall (2011) confirm that social intelligence is difficult to assess. Wawra (2009, p. 165) argues that the construct suffers from an outmoded approach to measuring it; that the only way to understand social intelligence is to understand the neuroscience behind it. Some of the difficulties arise when attributing cognitive assessments to social phenomena. What neuroscience is revealing, according to Goleman (2006, p. 14, cited in Wawra, 2009, p. 165), is that certain brain behaviors start to mimic each other when people socially interact. If social intelligence is a non-verbal contagion of emotional energy as suggested by Goleman, then the intelligence aspect is not *what is cognitively perceived* but how the social situation *generates physiologic and affective responses*. Much of this, it turns out is subconsciously processed, making it that much more difficult to measure cognitively but easily identified physiologically (Wawra, 2009, 166). Similar to the problem faced by classical physicists when confronted with quantum phenomena, a new mindset and measuring tools were needed to forge ahead.

Cultural Intelligence(CQ)

Ang and Van Dyne (2008, p. 3-4) define cultural intelligence as the ability to "function and manage effectively in culturally diverse settings." Cultural intelligence (CQ), as defined by Van Dyne et al. (2012) is comprised of four factors: metacognitive CQ, cognitive CQ, motivational CQ and behavioral CQ. Metacognitive CQ refers to the ability of the individual to be cognizant of the fact that they are in a multicultural setting which allows them to be open to new experience, observant of cultural norms and question their own assumptions. Cognitive CQ is the degree to which an individual is already familiar with a culture's norms and values such as the culture's history, its systems including educational, political, legal and social, as well as understanding the fundamental religious or spiritual beliefs of a culture. Motivational CQ indicates the intrinsic interest an individual has in cross-cultural learning and adaptation. This is important as cultural intelligence relies upon interactions with others and being motivated is a key functional requirement. Behavioral CQ indicates that an individual is sensitive to and able to express the full range of acceptable behaviors required for successful social interaction. Rockstuhl et al. (2011, p. 826) note that global leadership requires adoption of a multicultural perspective, the ability to balance local and global needs and to be able to work with many cultures simultaneously. As such, cultural intelligence is distinguished from general and emotional intelligence because of the nature of the culturally diverse context. To be successful in intercultural settings, the individual needs to understand and work with different cultures.

Research on cultural intelligence as an empirically valid construct is supported by the meta-analysis of studies done by Groves and Feyerherm (2011, p. 539). Their review of empirical research has sufficiently separated EQ from CQ, noting that the cross-cultural context is not sufficiently addressed by emotional intelligence but requires the additional skills that cultural intelligence entails. Their own study examined “CQ as a leadership competency for managers charged with leading culturally diverse work teams” and provided empirical evidence that CQ and sensitivity to cultural nuances as perceived by the followers made a difference in both leader and team performance quite distinctly from emotional intelligence alone. The research investigated whether cultural intelligence is an extension of social intelligence or a context dependent version of it.

Neuroscience and Leadership

Neuroscience, the correlation of universal and specialized brain behaviors with cognitive, affective and behavioral patterns, is helping the biological sciences understand how we interact and adapt socially (Chiao, 2009, p. 288). Neuroscience is providing new tools of measurement and discovering new social phenomena within the confines of the brain. With respect to identifying potential leaders, for example, Balthazard et al. (2012, p. 252) studied whether there is a ‘brain signature’ for transformational leaders. Their research used quantitative EEG (qEEG) that resulted in correctly identifying 92.5% of the participants who scored high as transformational leaders. In addition, it is now possible to not just measure an individual’s response to a social question but to measure two or more people simultaneously as they interact. Goleman (2006, p. 12) reports that social interactions can physically alter the brain by sculpting its shape, changing its size and the number of neurons as well as modifying or creating new synaptic connections. It’s this interaction that distinguishes cognitive and intrapersonal intelligence from social and cultural intelligence. Social and cultural intelligence *can only be measured in context*. This is one indication that the findings in social science can be mapped to the findings in neuroscience.

Understanding culture from a neuroscience perspective facilitates the understanding of how culture is formed and how cultural traits are developed and transmitted from generation to generation. This also informs the neuroscience behind cultural intelligence. For example, Iacoboni (2008, p. 32) discusses how speech is learned through an imitative neural mechanism mediated through mirror neurons. This study supported the hypothesis that perception and motor function are linked and that stronger mirror neuron response supported learning. Rockstuhl et al. (2010, p. 26-30) outline the neural correlates of metacognitive CQ, cognitive CQ, motivational CQ and behavioral CQ. While this paper will not delve into the technical details of the neural substrates—the fact that there are neural substrates with empirical evidence supporting brain behavior and cognitive behavior correlations indicates that social science and the biological sciences in fact find a meeting ground to determine what is ‘plastic’ (i.e. changeable) and what is ‘hard-wired’ (i.e. stable and intrinsic).

An important discovery in the field of neuroscience and germane to this paper is, according to Garland and Howard (2009, p192), the discovery of neuro-genesis: the growth of new neurons in the brain—a phenomenon that previous to 1998 was considered impossible. The discovery that the brain can grow new neurons, new neural pathways and fundamentally adapt itself to repeated experience, opens new opportunities for development. Rock and Schwartz (2007, p.11) discuss how leaders and managers need to motivate their followers based on the findings in neuroscience. For instance, research indicates that behaviorism, the use of incentives and coercion (i.e. carrot and stick) as moderators of behavior don’t work because they reinforce “neural patterns associated with the...problem”. In other words, putting attention on the undesired behavior, in effect, reinforces it. Similarly, having individuals focus on goals they know they cannot achieve ultimately creates stress. Rather it’s important to provide employees with problems that are challenging but are still within their capabilities to solve. Using positive expectation, a manager can then pull the best from their people. When an individual feels that the problem is within their capability to solve and that the social environment is supportive, the brain opens up new neural pathways to determine solutions. When investigating leadership and neuroscience, understanding how intelligence and learning, observation and imitation interplay on a neural level can provide insight into developmental strategies. The research therefore consulted with experts in emotional and social intelligence, cultural intelligence and neuroscience to explore these relationships and uncover any developmental models that may contribute to intervention strategies.

METHODOLOGY

Grounded theory was used to collect data from a purposive sampling of experts in the areas of global leadership, cultural intelligence and neuroscience. Twenty-three experts were contacted and seven interviews were completed. Most experts were doctorates in their respective fields having an extensive academic or research background or both. In terms of experience, the respondents had a total of 186 years as researchers, professors, published academics and authors of popular books on the relevant topics. In addition, authors of popular, expert-endorsed publications relevant to the topic were also interviewed. Sets of questions specific to each area were developed to address the gaps revealed by the literature review. The experts were selected based on their notable contributions to one or more of the areas. Data collection was through written and verbal interviews with naturalistic questions allowing expansion and development of emerging themes. Data analysis was performed through the grounded theory method requiring coding, constant comparison, taking memos and finally building theory that the interviewees could confirm to be faithful to their contributions. The validity and reliability of this qualitative method, aside from ensuring that the original questions follow the stated aims and objectives of the paper, is embedded in its rigorosity, relying heavily on the researcher's diligence in capturing, recording, analyzing and co-constructing a saturated theory.

ANALYSIS AND DISCUSSION

Analysis

The interview instrument was composed of twelve questions, four from each of the following streams: global leadership, cultural intelligence, neuroscience and interventions. As the interviews progressed, results were compared and extensive memos were written. Future interviews were modified by inputs from the previous ones. In some cases, it was additional research of the constructs introduced during the interviews; in others it was the articles or direct references that the respondent suggested should be researched. In addition, by continually comparing responses and through coding the transcribed interviews, certain themes emerged. The themes were selected based on their import to the topic. The purpose of the analysis was to determine what gaps in the convergence of global leadership, cultural intelligence and the corresponding neuroscience and or interventions exist. The themes address these. The research analyzed the following five in detail:

1. Effectiveness and Performance
2. Competence versus Intelligence
3. Brain Integration and Ego Development
4. Systemic, Holistic and Global Thinking
5. Self-versus Object Referral

Theme 1 Effectiveness and Performance

This theme was based on the count of the number of times the words *effective(ness)* and *performance* were used. From the outset, Respondent B took issue with describing context (domestic versus global) before discussing effectiveness. Being effective, he ascertained, was more critical than context and would be the first antecedent to assuming a global position. Respondent G, as a researcher, insisted that assessment be based on performance. Both these perspectives, effectiveness and performance, were echoed by the others, and particularly the neuroscientists who argued that the research on brain performance correlates with leader effectiveness. One of the flaws with current research on leadership mentioned by respondent B and G was that self-reporting is often inaccurate and yet forms the basis of a lot of research. Effectiveness, they insisted, must be measured by more objective performance. Effectiveness, they maintained, must be measured by more objective performance. Indeed, the neuroscientists are used to collecting large datasets and having them analyzed through sophisticated computer software (i.e. fMRI, EEG, TCM, QEEG, etc.). As a result, neuroscience is able to provide more reliable and repeatable findings, which is why it has appeal in corroborating the findings in the social sciences.

Theme 2 Competence versus Intelligence

This theme was explored because it was mentioned by virtually all respondents and introduces the theoretical tension in the interviews. At the outset of the interviews, Respondent B challenged the validity of the cultural intelligence construct. The concern arose out of the tension between the intelligence and

competency constructs. Sternberg (2007, p. 16, cited in Emmerling and Boyatzis, 2012, p. 5) notes that intelligence tests relate more to academic proficiency than career development. Benjamin, Gulliya and Crispo (2012, p. 55-57) provide examples of various competencies that are derived from emotional intelligence and are applied in specific leadership contexts, making them eminently practical. It becomes easy to see the attractiveness of the competency model because it provides clearly measurable behaviors in specific context parameters. On the other hand, the multi-dimensional model of cultural intelligence is modeled after Sternberg and Detterman's (1986, cited in Ang and Van Dyne, 2008, p. 4) four loci of intelligence: metacognitive, cognitive, emotional and behavioral. The attraction of this model, according to respondent G, is that it limits research along four lines of investigation. The competencies, because they are performance based, can be mapped to specific brain performance. However, intelligence and competence are both based on the quality of brain functioning, something indicated by Respondents D, E, F and H but using the model of integrated functioning which is reviewed below.

TABLE 1. THE POSITION OF THE EGO DEVELOPMENT IN WILBER'S MODEL

<i>K. Wilber</i>	% of US population	<i>Cook-Greuter</i> Ego Development Stages	<i>Torbert</i> ¹ Action logics
<i>SOUL</i> Transcendent	<u>Postpostconventional, Transpersonal, Ego-transcendent</u>		
Unitive view	<1%	6 Unitive	Ironist
<i>VISION LOGIC</i>	<2%	5/6 Construct-aware	Alchemist
<i>Postconventional</i> Systems view	~12%	5 Autonomous 4/5 Individualist	Strategist Individualist
<i>MIND</i> Conventional	~75%	4 Conscientious 3/4 Self-conscious 3 Conformist	Achiever Expert/technician Diplomat
<i>BODY</i> Preconventional	~10%	2/3 (Δ) Self-defensive 2 Impulsive	Opportunist Impulsive

Figure 1 - Cook-Greuter Ego Development Stages

Theme 3 Brain Integration and Ego Development

The third theme was generated by the neuroscientists and included the additional research on the topic of ego- or self-development. Respondents F and H suggested that the author conduct additional research into ego or self-development to satisfy the question on stages of development of intelligence. Investigation into the ego development (maturity) works of Piaget, Loevinger, Rooke and Torbert, and Cook-Greuter provided plenty of food for thought, particularly when respondent H confirmed that “there are brain patterns associated with different stages of Piaget’s cognitive development”. This tied into Respondent D’s focus on self-development, which will be addressed, in Theme 5.

Theme 4 Systemic, Holistic, and Global Thinking

The fourth theme was generated by the reflections on the nature of thinking expressed by the various respondents which has been summarized as systemic, holistic or global thinking. Thematically, the idea of systems thinking was brought up in slightly different ways by each of the respondents. Respondent B discussed the ability to be able to reconcile with those who have opposing points of view. In Cook-Greuter’s (1985, p. 22) stage development, post-conventional stages are open to other points of view. Most notably, the post-conventional stages of cognitive development include systems and meta-systems thinking capability. These address the requirements that Respondent C stated regarding global leaders be systems thinkers in world full of ‘multiplexities’. Indeed, stage 5 individuals have grown to the level of being able to “embrace some paradox and contradiction” including “toleration of ambiguity”. Respondent H noted that global leaders need to be able to get out of their “concepts and categories”, that is see outside of themselves. The post-conventional stages start taking on a “fourth person” perspective – which is a metacognitive state. Individuals at this stage are aware of their constructs and mental maps.

Theme 5 Self versus Object Referral

The last theme was explored because of its significance in summarizing the developmental opportunities for global leaders with cultural intelligence potential. Introducing the self-development stages of Cook-Greuter to the analysis provided a new framework for identifying, selecting and developing global leaders with cultural intelligence potential. The advantage of the framework is that it correlates to research on brain integration and performance. The underlying neurophysiology of the framework delves deeply into the perception-cognition-somatic markers and neural networks such as the default mode network.

Kohlberg's stages of moral development correspond to an increasingly sophisticated understanding of self and others. As Fiske (2009, p. 33) discusses when an individual perceives others as members of an out-group, it results in objectification and dehumanization. Neuroimaging shows that reduced functioning of the medial prefrontal cortex (mPFC) is correlated with objectification and dehumanization. Object referral therefore means that certain brain circuits and neural networks are 'wired' for dehumanization such as when the individual's amygdala is not fully developed and the pre-frontal cortex is not fully operational. Self-referral, therefore, would mean providing the amygdala with positivity (respondent H) and positive experiences (respondent B) and allowing the prefrontal cortex to naturally unfold its integrating and unifying capacities. Self-referral technologies, such as the Transcendental Meditation program, allow the neural circuitry to be reset by providing an experience of transcendence or what Maslow (1971, cited in Cook-Greuter, 1985, p. 30) called peak experiences. Peak experiences and brain integration have been correlated with post-conventional development.

DISCUSSION

Perhaps the most important discovery of this research are the relationships between the inner development of the global leader candidate being mapped to neurophysiological, ego-stage and moral development parameters together with research indicating that various intelligences cognitive, emotional, cultural and social and their loci – behavioral, cognitive, affect and metacognitive map to domains of influence: local, regional, national and global. The usefulness of this framework (see appendices) is in creating new theories of development and influencing new directions of research into identifying, assessing and developing global leaders with cultural intelligence.

During the interviews, leader/follower relationship was defined as the bilateral flow of intelligence between the leaders and followers. It was noted that if a leader does not get information from his followers he becomes ineffective. Another respondent called this resonant leadership – where emotional and social intelligence is activated - and leaders and followers have an effective, healthy relationship. Leader effectiveness in a domestic or national domain has been correlated with emotional intelligence while leader effectiveness in a cross-cultural domain has been correlated with cultural intelligence (Rockstuhl et al. 2011, p. 835). In this light, we can start to see how the various loci of intelligence: metacognitive, affect, cognitive and behavioral can be correlated to various domains of influence.

Metacognition, an important component of the cultural intelligence construct, is not isolated to intercultural interactions. Metacognitive function is a prefrontal cortex operation where information is integrated or as one respondent noted, "higher brain integration means that you're in touch with more inner resources". The more competent an individual is in their metacognitive skills, the more they are able to think systemically. A number of respondents felt this was a critical component of global leadership. Thinking systemically is available at the formal operations stage of ego development. In addition to ego development, moral development is associated with how we think about others. The post-conventional stages introduce the ability to consider other points of view and to view others as having valid points of view – i.e. contextually valid. Therefore, identifying global leader potential with cultural intelligence capability can be mapped to specific stages of ego development, moral development and brain integration.

By modifying the order to metacognitive, *affect*, cognitive and behavioral, it is possible to graphically illustrate the impact that Goleman (2006) and Goleman and Boyatzis (2008) propose that social and emotional intelligence make as predictors of leader effectiveness when cognitive skills are similar. This sequence also allows a graphic representation of domain of influence: metacognitive skills are needed at the global level; emotional skills predict success at the national or regional level; cognitive skills for lower levels of management or project level and those with a focus on behavioral competence would be at a local level working on tasks. The review of the various intelligences has provided insight into the fact that each provides a pathway for the ego to embrace *others* and *objects* in a more sophisticated and integrated way as it matures through its various stages. Brain integration research demonstrates that one has more access to

inner resources which when developed become competencies. The competencies – and the neural behaviors that support them – allow for the flow of intelligence socially, culturally, emotionally, cognitively and behaviorally and function as predictors of effectiveness.

CONCLUSIONS & RECOMMENDATIONS

Conclusions

Global Leadership

According to the findings, global leadership requires systemic, holistic thinking. It requires being open to others and to uncertain and ambiguous experiences. This, according to the findings, requires that the prefrontal cortex of the brain be ‘online’ and the amygdala to be ‘calm’. Initial analysis on ego stage development and post-conventional moral maturity provided a set of correlated competencies that matched many of those required for global leaders and cultural intelligence.

Cultural Intelligence(CQ)

Since a significant factor in global leadership is interacting with other cultures, being adept in intercultural situations plays a vital role. CQ requires metacognitive competence - the ability to assume a ‘fourth person’ perspective and the ability to think outside of one’s own cultural values. Being self-referral, that is comfortable with one’s self, proved to be one of the core competencies required for cultural intelligence and a vital tool for interacting in the global domain.

Neuroscience

Developmental interventions that activate the default mode network on a regular basis would provide the calm, social state of the prefrontal cortex required for developing global leadership thinking and the metacognitive competency required for cultural intelligence.

Developmental Strategies

The research on the Transcendental Meditation program reviewed in this study shows that the practice improves brain integration and post-conventional development, both appropriate for global leadership and cultural intelligence. The longitudinal study on intentional change theory by Boyatzis (2006, p. 612) speaks to significant improvements in emotional and social skills. A developmental strategy that maps ego maturity with neurophysiological signatures would provide a clear path to grooming global leadership talent.

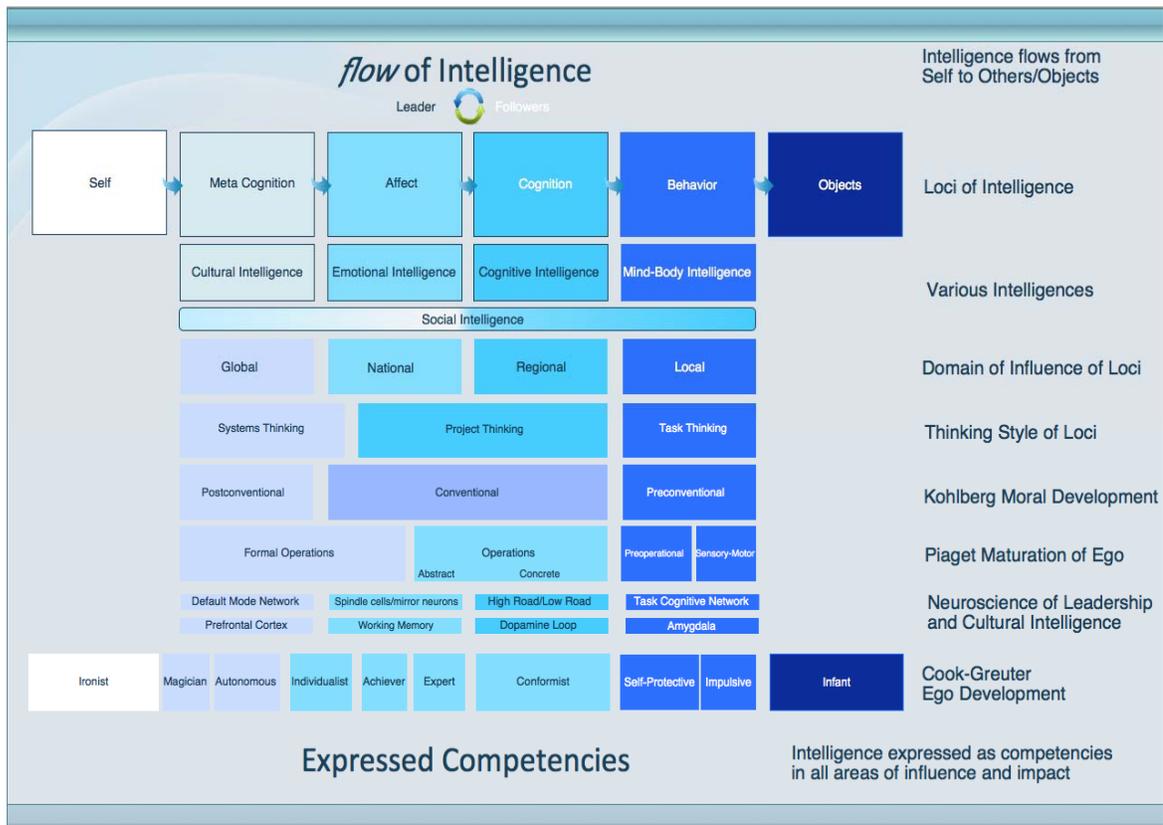
The Flow of Intelligence

The ‘flow of intelligence’ framework is proposed to investigate the various intelligences and their influence on the domains (global, national, regional, local) and the resultant competencies that are derived from them. An analysis of the competencies of the higher stages of development has mapped well to the skills and competencies required by global leaders with cultural intelligence. Similarly, an analysis of the underlying neurophysiology mapping to metacognitive, affect, cognitive and behavioral development provides a robust framework to inform future research and assist in the identification of global leadership and cultural intelligence candidates.

Implications

Global Organizations

The implication of this research to global organizations is that global leaders are distinct from domestic leaders largely by their thinking, their neurophysiology and their ego-stage development. Global, holistic, systemic, metacognitive thinking requires that the brain behave differently than at the domestic or national level. While many of the competencies needed to succeed at the global level can be demonstrated at the domestic level, these skills are essential at the global level for sustainable *cooperative* relationships with international partners. Similarly, moral maturity is based on ego stage and associated with higher brain integration. This maturity is the basis of increasing the flow of intelligence (social, emotional and cultural) and information from followers to leaders. It closes that gap. When organizations realize that assessment and development of their leadership candidates is cost effective, particularly in the global arena, then the suggested framework provides a more objective platform to identify and assess leaders who are ready for global responsibilities.



Academics, Practitioners and Researchers

Having a framework with a neurophysiological basis provides an effective gauge for an individual as they develop. One of the implications of the framework is that it also *disqualifies* candidates based on their stage development. This is an important finding. It means organizations can avoid costly mistakes by putting the inappropriate individual into a global position.

Recommendations

Global Organizations

The proposed ‘flow of intelligence’ framework provides several metrics both psychologically and physiologically. It is recommended that global organizations start the process of clearly identifying those candidates so that they can be put on the appropriate development track.

Academics, Practitioners and Researchers

For academics, practitioners, and researchers, it is recommended to continue correlating competencies needed for global leadership and cultural intelligence with higher ego state development, post-conventional moral maturity and specific brain behaviors such as integrated brain functioning.

Limitations & Further Research

This study was constrained by the number of interviews conducted and would be improved by having a wider number of participants. Ego and moral maturity need to be validated in cross-cultural contexts, which fell outside the scope of this study. The ‘flow of intelligence’ framework opens up a number of avenues of further study. Research correlating brain behavior or signatures with global leader performance and cultural intelligence competencies is needed. Similarly, ego stage and moral maturity need to be tested in different cultural contexts to assess their correlation across cultural boundaries.

REFERENCES

- Ang, S., & Van Dyne, L. (2008) 'Conceptualization of cultural intelligence: definition, distinctiveness, and nomological network', In: Ang, S. & Van Dyne, L. (Ed.) *Handbook on Cultural Intelligence: Theory, Measurement and Applications*, pp.3-15
- Antonakis, J., Ashkanasy, N.M. & Dasborough, M.T. (2009) 'Does leadership need emotional intelligence?', *Leadership Quarterly*, 20 (2), pp.247-261.
- Benjamin, B., Gulliya, T. & Crispo, A.W. (2012) 'Emotional intelligence and organizational culture', *Insights to a Changing World Journal*, Mar2012 (9), pp.52-64.
- Boyatzis, R.E. (2006) 'An overview of intentional change from a complexity perspective', *Journal of Management Development*, 25 (7), pp.607-623.
- Chiao, J.Y. (2009) 'Cultural neuroscience: a once and future discipline', *Progress in Brain Research*, 178, pp.287-304.
- Cook-Greuter, S.R. (1985) 'Ego development: nine levels of increasing embrace', In: A Detailed Description of the successive stages of ego-development, pp.1-36.
- Emmerling, R.J. & Boyatzis, R.E. (2012) 'Emotional and social intelligence competencies: cross-cultural implications', *Cross Cultural Management: An International Journal*, 19 (1), pp.4-18.
- Florida, R. (2005) 'The world is spiky', *Atlantic Monthly*, 296 (3), pp.48-51.
- Fiske, S.T. (2009) 'Dehumanization and objectification to rehumanization', *Annals of the New York Academy of Sciences*, Vol 1167, pp.31-34.
- Gardner, H. (1983) *Frames of mind: the theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. & Moran, S. (2006) 'The science of multiple intelligences theory: a response to Lynn Waterhouse', *Educational Psychologist*, 41 (4), pp.227-232.
- Garland, E.L. & Howard, M.O. (2009) 'Neuroplasticity, psychosocial genomics, and the biopsychosocial paradigm in the 21st century', *Health & Social Work*, 34 (3), pp.191-199.
- Goleman, D. (1998) 'What makes a leader?', *Harvard Business Review*, Volume 76 Issue 6, pp.92-105.
- Goleman, D. (2006) *Social Intelligence: The New Science of Human Relationships*. New York, New York: Bantam Books.
- Goleman, D. & Boyatzis, R. (2008) 'Social intelligence and the biology of leadership', *Harvard Business Review*, 86 (9), pp.74-81.
- Groves, K.S. & Feyerherm, A.E. (2011) 'Leader cultural intelligence in context: testing the moderating effects of team cultural diversity on leader and team performance', *Group & Organization Management*, 36 (5), pp.535-566.
- Gundling, E., Hogan, T. & Cvitkovich, K. (2011) *What is global leadership?:10 key behaviors of great global leaders*. Boston: Nicholas Brealey Publishing.
- Hunter, A., Murphy, K., Grealish, A., Casey, D. & Keady, J. (2011) 'Navigating the grounded theory terrain. part 2', *Nurse Researcher*, 18 (4), pp.6-10.
- Iacoboni, M. (2008) 'The role of premotor cortex in speech perception: evidence from fMRI and RTMS', *Journal of Physiology-Paris*, 102 (1-3), pp.31-34.
- Ireland, R.D. & Hitt, M..A. (1999) 'Achieving and maintaining strategic competitiveness in the 21st century: the role of strategic leadership', *The Academy of Management Executive*, 13 (1), pp.43-57.

- Javidan, M., Teagarden, M. & Boween, D. (2010) 'Making it overseas', *Harvard Business Review*, 88 (4), pp.109-113.
- Judge, T.A., Colbert, A.E. & Ilies, R. (2004) 'Intelligence and leadership: a quantitative review and test of theoretical propositions', *Journal of Applied Psychology*, 89 (3), pp.542-552.
- Kohlberg, L. & Hersh, R.H. (1977) 'Moral development: a review of the theory', *Theory Into Practice*, 16 (2), pp.53-59.
- Mendenhall, M.E., Reiche, B.S., Bird, A. & Osland, J.S. (2012) 'Defining the "global" in global leadership', *Journal of World Business*, In press, pp.1-11.
- Moran, S. (2009) 'Purpose: giftedness in intrapersonal intelligence', *High Ability Studies*, 20 (2), pp.143-159.
- Murphy, N.A. & Hall, J.A. (2011) 'Intelligence and interpersonal sensitivity: a meta-analysis', *Intelligence*, 39 (1), pp.54-63.
- Robinson, D.A. & Harvey, M. (2008) 'Global leadership in a culturally diverse world', *Management Decision*, 46 (3), pp.466-480.
- Rock, D. & Schwartz, J. (2007) 'The neuroscience of leadership', *Reclaiming Children and Youth: The Journal of Strength-based Interventions*, 16 (3), pp.10-17.
- Rockstuhl, T., Hong, Y., Ng, K.Y., Ang, S. & Chiu, C. (2010) 'The culturally intelligent brain: from detecting to bridging cultural differences', *NeuroLeadership Journal* (3), pp.22-36.
- Rockstuhl, T., Seiler, S., Ang, S., Van Dyne, L. & Hubert, A. (2011) 'Beyond general intelligence (IQ) and emotional intelligence (EQ): the role of cultural intelligence (CQ) on cross-border leadership effectiveness in a globalized world', *Journal of Social Issues*, 67 (4), pp.825-840.
- Sternberg, R.J. & Vroom, V. (2002) 'The person versus the situation in leadership', *Leadership Quarterly*, 13 (3), pp.301-323.
- Walter, F., Cole, M.S. & Humphrey, R.H. (2011) 'Emotional intelligence: sine qua non of leadership or folderol?'. *Academy of Management Perspectives*, 25 (1), pp.45-59.
- Wawra, D. (2009) 'Social intelligence', *European Journal of English Studies*, (13) 2, pp.163-177.

MULTIATTRIBUTE MODELS WITH MULTIPLICATIVE FACTORS IN THE FANTASY SPORTS

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ABSTRACT

The fantasy leagues are becoming every day more popular, this way of "live sports" has gained many followers and in 2012, in many countries and for the majority of the sports, are participating in fantasy leagues. In them, for every game, the participants receive points according to the real performance of the players that are on their team. At the end of the season, who accumulates more points is the winner. For this reason, having a good squad of players is essential to compete in fantasy leagues. The choice of the players to be included in the squad is, undoubtedly a multicriteria decision problem, for which it is possible to think in a Multiattribute Models with multiplicative factors (MMwMf) to help in the choice of the squad. In this work, it will be used the MMwMf, to conform a squad of a team of soccer fantasy, from there the objective: To construct a Multiattribute Models with multiplicative factors to help to conform the squad of a participant in one league of soccer fantasy. To achieve this general objective and its specific objectives, it will be used the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS).

INTRODUCTION

The fantasy leagues, that were initiated like an entertainment among friends, have been popularized from the ends of the century XX and the starts of the century XXI (Davis & Duncan, 2006; Gillentine & Schulz, 2001; Holleman, 2006; Kwak et al., 2010; Otalvora, 2008) they have been converted for many in a new form of "live sports". This new form of life has won followers in the majority of the sports and in almost the whole world.

To win a fantasy league, the participant becomes player, coach and owner of his team and must compete against other league members, following all the same goal, to accumulate the biggest quantity of possible points, in each one of the days of play. This way, who achieves the best total score at the end of the season fantasy league is declared the winner of it.

The rules are adapted to the sport for which the league is created and simultaneously every league has his particular rules. It is common that at start of the league season there would be a draft or a selection system that allows each participant to build their team or squad. To complete a fantastic team, the participants choose players who are part of the different teams that shape the different affiliations or leagues that compete for a championship, in the respective sport in the real life. This first selection involves a process of decisions making, which ends up being one of the most important if aspires to win the league.

To conduct the decision making process, which allows to form the squad, respecting the particular rules of the respective league, it is necessary to attend on a large quantity of parameters, that converts the process into a multi-criteria decision making.

Among the large number of tools for multi-criteria decision making, there are two who stand out for its simplicity, so much to conceive the model, as for its implementation: the Matrixes Of Weighing (MOW) and the Multiattribute Models with multiplicative factors (MMwMf) (García & Hernández, 2011). It is for this reason that for this work they have been chosen the MMwMf, to conform the squad of a

participant in a fantasy. Particularly, this is going to work with soccer, which is usually one of the sports most difficult of estimating the performance of the players. According to the before said, the objective of this work will be: To construct a Multiattribute Models with multiplicative factors to help to conform the squad of a participant in one league of soccer fantasy.

This general objective involves three specific objectives:

- To explain how the soccer fantasy work, through one league of fantasy soccer in particular.
- Describing, what they are and how they function, the MMwMf.
- Construct a MMwMf, allowing form the initial squad of a participant in a league of soccer fantasy.

To reach the raised objectives it will follow the Integrated-Adaptable Methodology for the development of Decision Support System (IAMDSS, in Spanish, Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones [MIASAD]) (García, et al., 2011), which, among their characteristics they emphasize their flexibility and adaptability to different types of investigation (Hernández, et al., 2013), by which they can be used of it, only the steps that be considered necessary, of there, similar to the realized in other works (Hernández, et al., 2012; 2013) only the following steps will follow:

- a) To define the problem that, as is indicated in the objectives is to construct a MMwMf, to help to conform the squad of a participant in one a soccer fantasy league;
- b) To prepare the first prototype, where first there identified the users of the final product, that is to say the principal readership of the article, that will be all those that usually take part in the fantasy, who will join studios of decision making and second the structure of the article is established, which in addition to the introduction will consist of three central chapters, in the first, will present the fantasy leagues, including fantasy soccer forward in this paper, in the second some general comments will be done of the MMwMf and in the third and main of all will be presented the MMwMf, that permits to select the players that will integrate the squad of a participant in a soccer fantasy;
- c) Obtaining data, in this case on MMwMf and fantastic leagues, especially soccer fantasy;
- d) Establishing the alternatives, that would be the different options of constructing a MMwMf for the selection of a squad of soccer fantasy;
- e) Evaluate alternatives, according to the ability of different models to construct a squad that can be successful;
- f) Selecting the alternative, according to the previous evaluation and considering the secondary objectives, whether they are tacit or explicit;
- g) Implementing the best alternative, illustrating as the model chosen can be used to conform the initial squad of a participant in a soccer fantasy;
- h) Establishing controls, the mechanisms, that permit to recognize if the solution obtained, continues being valid in the course of the time.

With regard to limitations and reaches, no field work will be made, but it will be shown the facilities that offers the model chosen to select a squad, through a simple and hypothetical example, to guarantee a major generality of the application of the same one.

FANTASY LEAGUES AND SOCCER FANTASY

As already it was commented the fantasy sports, have grown and they continue growing in recent years (Bolitho, 2006). As definition of fantasy sports has: "A fantasy sport is a game in which players (i.e., public individuals) compete against one another by maintaining rosters of actual professional athletes and using the real game statistics of those athletes to score points" (Massari, 2006, 444-445). And a definition of fantasy sports league: "Fantasy sports leagues are one way fans can enjoy their favorite sports away from the stadium or arena. A fantasy sports league is made up of a dozen or so participants who compete against each other based on statistics from real-world competitions" (Farquhar & Meeds, 2007, 1208). These same authors clarify that Fantasy leagues normally begin with a draft of some sort, where the participants (owners) either select their players or are randomly assigned players (Farquhar & Meeds, 2007).

This decision to conform its team is the first one and perhaps more important that a participant realizes in a fantasy. And although a large quantity of participants in the fantasy leagues, often lack training in quantitative and decision making, participating in one, it involves an a set of decisions makings, the majority of which are chained one with the other. Among the most important processes of decision making

to which a participant must resort in a fantasy, it is, the selection of its initial squad of players. It is in this aspect, the selection of the initial squad, in which this work will be centered. Although they try to make this selection so that it can adapt to the great generality of the leagues, it will be chosen La Liga (Spanish soccer), for the illustration.

As already it was indicated, each league has its own rules, in this article they will follow established in "Desafío la liga", although of it not greater details will be given, but only those that are indispensable to understand the criteria and attributes used in the final model, who have greater interest in these rules they can be revised in ESPN (2012).

To "Desafío la liga": They will be used to 15 players and cannot have more than three players from the same team. With regard to positions will not have more than 2 goalkeepers (GK), 5 defenders (Df), 5 midfield players (Mi) and 3 forward (Fo). For the formations in the field is established: Each participant should select, of his 15 players, 11 starters for each week of the fantasy. Among those 11 players can only have one GK and for the rest of the players some of these formations, orderly: Df-Mi-Fo: 4-4-2 (for default); 4-3-3; 3-4-3; 3-5-2; 5-3-2; 4-5-1 y 5-4-1.

The system of points of "Desafío la liga", it includes among others aspects: Matches = 1; 60 Minutes of play = 2; Goal of Df or GK = 6; Goal of Mi = 5; Goal of Fo = 4; Assistance = 3; Clean chart for Df or GK (minimum 60 minutes) = 4; Clean chart for Mi (minimum 60 minutes) = 1; Caught = 1 point by each 3 caught; Penal it Caught = 5; Penal Erroneous = -2; Goals Permitted by GK or Df = -1 point by each 2 goals; Yellow card = -1; Red card = -3; Goal against = -2.

Generally these rules seek to apply a multi-criteria approach, by which subsequently some details will be given of the Multiattribute Models with multiplicative factors (MMwMf).

BRIEF OF THE MULTIATTRIBUTE MODELS WITH MULTIPLICATIVE FACTORS

The comments on the Multiattribute Models with multiplicative factors (MMwMf) will take principally of García & Hernández (2011) and some of its quotes. There, based on the concepts of Ben-Mena (2000), Ehr Gott & Gandibleux, (2002) and of Roy & Vincke (1981), but mainly following Baucells & Sarin (2003), will be defined the Multiattribute Models (MM), as those that are designed to obtain the utility of alternatives through the valuable attributes, that they should be evaluated as components of the criteria. In every case the final result, as expressed in the equation (1), is an additive model (García & Hernández, 2011):

$$Pts = \sum_i pc_i * (\sum_j pa_jc_i * va_jc_i) \quad (1)$$

Where, for (1) and (2), which will be presented later, the subscript i represents the criterion and subscript j the attribute, therefore pc_i will be the weight assigned to criterion i, pa_jc_i will be the weight of attribute j of criterion i, va_jc_i will correspond to the value assigned to attribute j of criterion i, and Pts will be the total value reached about the variable in study. Thus under this definition and by its way to operate, for a MMwMf, it is only needed to define criteria, attributes and a valuation mechanism for such, which implies that the MMwMf is very useful when choosing between different alternatives, or when them must be valued or to made hierarchies. Nevertheless, which is its greater strength, the additively, that makes it simple to operate, becomes its main weakness.

This weakness, consequence of additively, that manifests when there are different scales from evaluation, or values in very distant ranks, it can be evaded, since it is seen in the equation (2) through the multiplicative factors (García & Hernández, 2011), which transform the model in:

$$Pts = \prod_k fg_k * (\sum_i \prod_h f_{ih} * pc_i * (\sum_j pa_jc_i * va_jc_i)) \quad (2)$$

In (2) maintains all parameters of (1) and additionally using correction factors, that operate for the whole model, which will be called general factors, the fg_k and the f_{ih} that are the corrective factors of the criteria, from there that k represent the K general factors and h the H factors of the respective criterion i. Although there is not an analytic limit, for these multiplicative factors, so much general as of the criteria is recommended that never they be more than three. Having understood, what they are and in what they consist the MMwMf; it can be passed to construct the model, that permit to select the initial squad in a soccer fantasy.

A MULTIATTRIBUTE MODELS WITH MULTIPLICATIVE FACTORS FOR A SOCCER FANTASY

The Multiattribute Models with multiplicative factors (MMwMf) to be constructed, must take as principal criteria the value that the player has in the fantasy, the performance expected of the player, so much in the offense, as in the defense and a criterion, that despite not being very technical, has high importance in the fantasy, that is the affinity that the participant feels for a player or a team.

Just as it can be seen in the figures 1, 2 and 3, where not only the criteria and his attributes appear, but additionally have their respective weights and the general multiplicative factors, the criterion Player cost, has two attributes, one concerning what must be paid by the player, Reduction of capital and other Direct cost normalized, which is related to his value in the fantasy, since the higher cost, better performance is expected. Upon expressing the score of Reduction of capital, it will come given by 100 minus the player value, normalized. This normalization is made using as 100 the maximum quantity of money that the player is allowed to spend in the acquisition of players.

Criterion	P	Attributes	P	J01034	J01111	J02033	J02112	J01193					
Player cost	0,335	Reduction of capital	0,30	80	24,01	86	25,79	83	24,91	92	27,75	97	29,10
		Direct cost normalized	0,70	100	69,90	70	49,01	85	59,43	38	26,29	15	10,54
(f ₁)				1,00	31,46	1,00	25,06	1,00	28,25	1,00	18,10	1,00	13,28
Field performance	0,550	Offensive	0,55	100	55,00	46	25,30	43	23,65	38	20,90	41	22,55
		Defensive	0,45	100	45,00	46	20,70	43	19,35	38	17,10	41	18,45
(f ₂)				1,00	55,00	1,00	25,30	1,00	23,65	1,00	20,90	1,00	22,55
Affinity	0,115	With the player	0,90	100	90,00	100	90,00	100	90,00	100	90,00	100	90,00
		With the team	0,10	100	10,00	100	10,00	100	10,00	100	10,00	100	10,00
(f ₃)				1,00	11,50	1,00	11,50	1,00	11,50	1,00	11,50	1,00	11,50
Global (fg1)				1,00	97,96	1,00	61,86	1,00	63,40	1,00	50,50	1,00	47,33
Regularity (fg2)				1,00	97,96	1,00	61,86	1,00	63,40	1,00	50,50	1,00	47,33
Participation (fg3)				1,00	97,96	1,00	61,86	1,00	63,40	1,00	50,50	1,00	47,33
Pts. =					J01011 = 97,96	J02011 = 61,86	J03012 = 63,40	J04012 = 50,50	J05012 = 47,33				

Global = 0 if: j_{ei} > 3, j_{po1} > 2, j_{po2} > 5, j_{po3} > 5, j_{po4} > 3, C_{tji} > MD_{isp}; 1 for all other case.

Figure 1: The MMwMf constructed, showing the first 5 selections of the squad.

That is to say the value normalized of each player will be the cost that assigns him the league divided among the maximum total of investment of the league, multiplied by 100. For the attribute Direct cost normalized, it multiplies additionally this value normalized by 5, since the prices of the players upon being normalized will remain in values under 20, by which with the latter multiplication a value nearer to 100 is obtained, which simultaneously allows a major differentiation between the players.

The performances of each player are obtained from the experts in fantastic leagues, which are used to publishing these values, according to the performances of each player during the season. To the start of the season, when the squad is assembled, the values of the previous season should be used. In the case of players that were not in the league the previous season, whether for coming from teams that gain promotion or by coming from other leagues, his value is estimated in accordance with a player of similar price and that plays the same position. Since the prices of the players are a measurement of their performance expected in the league. Nevertheless, it is usually normal to have difficulties upon reckoning the defensive and offensive performance of a player, since the performance of each player is not normally present in such detail. In this case, the global performance of the player is used for both attributes. In every case the performances are normalized according to the player of greater score, to which is assigned the value of 100 and to the remainders they will be assigned proportional values. Also it should be emphasized, that for the majority of the scoring systems of the soccer fantasy, the Fo and GK, are used to having higher performances than the Mi and the Df.

For the third criterion Affinity, also two attributes were contemplated, with the player and with team and it was given greater value to the first one, since for the rules of this fantasy they cannot be included more than three players of the same team. No multiplicative factors of criteria were used, but instead three general multiplicative factors were used. The second of them Regularity, is 1 if it is expected that the player maintain a performance more or less constant during all the interim of duration of the league, otherwise assigned a value less than 1; Participation, for an athlete be given the value of 1 if expected to participate regularly in all league games, otherwise it will give a value less than 1, even becoming 0, if the player could be injured for a long time. The first general multiplicative factor, Global, is less direct and it is created to respect the rules of the fantasy, thus it will be maintained in 1, at the start, but will be 0 if the

player is available by surpassing its value the available money to invest, or if have exhausted the quota of players on their team or their position.

La Liga (Spanish soccer) will have 20 teams with an average of more than 20 players on their roster, at the start of the season, whereby the number of players to be evaluated are a little over 400, hence it is appropriate to make a list of players sorted in decreasing order by their performance and taking of this list in principle only the $n+1$ first players of each team, where n will be for this case equal to 3 and it corresponds to the maximum number of players by team that is permitted to select. The selection will begin from this list, in any case, of being necessary, it is possible to reduce this list of work to $2*m$ first players, being m the maximum number of total players permitted. As upon completing the quota of a position they should be eliminated of the list of work all the players of this position, they can be added to the list of start other players of the team, who play positions have not yet been taken over. An initial table of this list of work, is similar as the table 1. For this case this first list was prepared with $3*m$ that is to say 45 players and they took $3*n$ for each of the positions that is to say 6 GK, 9 Fo and 15 Df y Mi.

In the table 1, as in Figures 1, 2 and 3, players have been identified by the letter J followed by five digits, the first two identify the player, which have been ranked according to their performance in the last fantasy league, the third and fourth digits identify the team and fifth digit the position. The teams are ordered alphabetically, although generally they are ordered according to the number of points generated in the last fantasy league, as for player. This order does not have to coincide exactly with the final results of La Liga. For the last digit, which identifies the position that for the fantasy league the player redeems, as it was indicated previously the GK are 1, 2, the Df, 3 the Mi and 4 the Fo. In the table 1, in the column of performance (Perform), the points of the player are visualized already normalized on base 100, where 100 is for the player who has generated most points in the last league fantasy. Equally in the column of the cost (Cost) of the player the normalized value expresses itself already, although without multiplying for 5. In the table 1, not expressed values for attributes of the Affinity criterion, since they depend on each participant in the fantasy and sometimes the case is given that a player by being a fan to a club does not accept players of the rival team and it can give qualifications very low to a player for that reason, independent that the player in itself have had an excellent performance. Of the values of the table 1 there have been chosen the first five players who are those who appear in the figure 1, and later in figures 2 and 3 they are shown the remainder of the 15 players selected. In the table 1, it is possible to notice the high performance of Fo, where the first 8 players of the list are Fo, in particular the first player of the list it has an advantage of more of the double of the points with regard to the best players of the remaining positions. The same does not happen with the GK, that as it is possible to see in the table 1, except the best of them, the others do not occupy positions privileged in the table of the best 45.

For the selection of 15 players, which in the table 1 they appear in bold face, the followed strategy was to choose the first players for each of the positions and given that they spent much of the available budget, for the remainder of the selected, they tried to take players not exceed the budget unit that remained to complete the 15 places. On the way to work one can see that the last player chosen was more expensive than some of the players previously selected.

Trying to be neutral about the teams and players, in the attributes pertaining to the criterion Affinity the maximum punctuation was assigned to all the players. In 15 chosen players, since it is possible to observe in the figures 1, 2 and 3, none stayed neither with low regularity, nor with low participation and those players for whom the factor general Global became 0, of course they were not selected, therefore all the general multiplicative factors are seen equal to 1. Well as it is possible to see in the figures 1, 2 and 3 and in the table 1, selected two players from the teams: 03, 11, 16 and 19 and a player of each team: 01, 04, 06, 07, 10, 12 and 14, completing this way the authorized 15, that on the average they offer a performance expected of the 51,58% using the 97,97% of the available money, what shows a good use of the capital. Although by reasons of space not greater details are given of how went advancing in the use of the model some of the alternatives were discarded, with the values highlighted in the table 1 and the selections showed in the figures 1, 2 and 3, it is possible to understand easily how the MMwMf works, created to select the initial squad of a participant in a fantasy soccer. Hence, we present some conclusions and future investigations.

Table 1. The first 45 eligible players and 15 selected.

Player	Perform	Cost	Player	Perform	Cost	Player	Perform	Cost
J01034	100	19.97	J01143	36	2.45	J04152	30	16.00
J01124	59	9.42	J04113	35	9.12	J06032	30	14.15
J01174	57	18.01	J01073	35	1.62	J08112	30	4.44
J01154	52	19.90	J03022	34	15.23	J03162	30	2.82
J01024	52	19.87	J02153	33	17.02	J02192	30	3.67
J01094	50	13.38	J02023	33	15.40	J04162	30	11.21
J01044	48	6.03	J01162	33	3.88	J06113	29	4.10
J01111	46	14.02	J02063	32	3.40	J01011	28	2.23
J01054	46	13.36	J07112	32	7.76	J05022	28	9.98
J01064	43	9.27	J03152	31	15.43	J02161	27	2.00
J02033	43	16.98	J04022	31	14.42	J01102	27	1.96
J01193	41	3.01	J04033	30	16.25	J01081	25	2.45
J02112	38	7.51	J05113	30	9.56	J02082	25	3.18
J03033	37	15.87	J03193	30	2.65	J05031	22	6.14
J03113	37	7.48	J02173	30	11.32	J01131	22	5.99

CONCLUSIONS AND FUTURE INVESTIGATIONS

More than showing the 15 players selected, the most relevant thing in this work is to have constructed the Multiattribute Models with multiplicative factors (MMwMf), that permits to do the selection of the players that will integrate the initial squad of the participants in a soccer fantasy, complying with the general objective pursued in this work. Also, it showed how a soccer fantasy works and it was illustrated what are and how do they work the MMwMf, complying in this manner with the specific objectives that had arisen.

It is interesting to note, that not necessarily the better players, of the most noticeable teams, are going to be the first selected, this happens for two reasons, a good player in its respective league, it is not necessarily so noticeable for the fantasy leagues and the prices of the big teams players sometimes can be very costly.

Here it was followed a general strategy, that began trying to recruit the best players in each position and then working with the available budget, but still can work with a strategy that does not allow investing in each player beyond a given amount. That is to say that the MMwMf are going to allow following different strategies, therefore it is recommended to try to analyze these different strategies to see which offers better results.

To prove what strategy offers better results, it is possible to initiate with one already finished league, in this case that of 2011 and doing the different trials of forming the squad and reviews at the end, that strategy generates the squad that produces the best results.

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Figure 2: The MMwMf constructed, showing from the 6 to the 10 selection of the squad.

Criterios	P	Atributos	P	J02063	J03162	J01011	J01102	J02192	
Costo del jugador	0,335	Reducción del capital	0,30	97	28,98	97	29,15	98	29,41
		Costo directo normalizado	0,70	17	11,90	14	9,87	11	7,81
(f ₁)				1,00	13,69	1,00	13,07	1,00	12,44
Rendimiento en el campo	0,550	Ofensiva	0,55	32	17,60	30	16,50	28	15,40
		Defensiva	0,45	32	14,40	30	13,50	28	12,60
(f ₂)				1,00	17,60	1,00	16,50	1,00	15,40
Afinidad	0,115	Con el jugador	0,90	100	90,00	100	90,00	100	90,00
		Con el equipo	0,10	100	10,00	100	10,00	100	10,00
(f ₃)				1,00	11,50	1,00	11,50	1,00	11,50
Global (fg1)				1,00	42,79	1,00	41,07	1,00	39,34
Regularidad (fg2)				1,00	42,79	1,00	41,07	1,00	39,34
Participación (fg3)				1,00	42,79	1,00	41,07	1,00	39,34
Pts. =					J01011 = 42,79	J02011 = 41,07	J03012 = 39,34	J04012 = 38,50	J05012 = 41,98

Global = 0 si: jei > 3, jpo1 > 2, jpo2 > 5, jpo3 > 5, jpo4 > 3, Ctji > MDISP; 1 para todo otro caso.

Figure 3: The MMwMf constructed, showing from the 11 to the 15 selection of the squad.

REFERENCES

- Baucells, M. & Sarin, R., "Group decisions with multiple criteria", Management Science, 49(8), 1105-1118 (2003).
- Ben-Mena, S., "Introduction aux méthodes multicritères d'aide à la décision", Biotechnol. Agron. Soc. Environ, 4, 83-93 (2000).
- Bolitho, Z. C., "When Fantasy Meets the Courtroom: An Examination of the Intellectual Property Issues Surrounding the Burgeoning Fantasy Sports Industry", Ohio State Law Journal, 67, 911-961 (2006).
- Davis, N. W. & Duncan, M. C., "Sports Knowledge is Power. Reinforcing Masculine Privilege Through Fantasy Sport League Participation", Journal of Sport & Social Issues, 30(3), 244-264 (2006).
- Ehrgott, M. & Gandibleux, X., *Multiple criteria Optimization: State of the art annotated bibliographic surveys*, USA: Kluwer Academic Publishers (2002).
- ESPN. Official Rules. Desafío La liga. In: <http://games.espn.go.com/desafio-la-liga/es/story?pageName=desafio-la-liga/reglas>, consulted March 2013 (2012).
- Farquhar, L. K. & Meeds, R., "Types of fantasy sports users and their motivations", Journal of Computer-Mediated Communication, 12(4), 1208-1228 (2007).
- García G., M. J. & Hernández R., J. G. "Multiattribute Model with Multiplicative Factors and Matrixes Of Weighing and the Problem of the Potable Water", In R. Espin, J. Gómez & A. Racet (Ed), Towards a Transdisciplinary Technology for Business Intelligence Gathering Knowledge Discovery, Knowledge Management and Decision Making. Germany: Shaker Verlag, 364-375. (2011).
- García, M. J., Hernández, J. G. & Hernández, G. J., "Una Metodología Integradora-Adaptable para desarrollar Sistemas de Apoyo a las Decisiones (MIASAD)", In J. Valderrama (Ed.), Congreso Interamericano de Computación Aplicada a la Industria de Procesos CAIP'2011, España: Universidad de Girona, 753-760 (2011).
- Gillentine, A. & Schulz, J., "Marketing the Fantasy Football League: Utilization of Simulation to Enhance Sport Marketing Concepts", Journal of Marketing Education, 23(3), 178-186 (2001).
- Hernández, J. G., García, M. J. & Hernández, G. J., "Dynamic knowledge: Diagnosis and Customer Service", In N. Delener (Ed.), Service Science Research, Strategy, and Innovation: Dynamic Knowledge Management Methods, Hershey, PA: IGI Global, 558-584 (2012).
- Hernández R., J., García G., M. & Hernández G., G., "Enterprise logistics, indicators and Physical distribution manager", Research in Logistics & Production, 3(1), 5-20 (2013).

Holleman, M. C., "Fantasy football: Illegal gambling or legal game of skill?", North Carolina Journal of Law & Technology, 8(1), 59-80 (2006).

Kwak, D. H., Lim, C. H., Lee, W. Y. & Mahan, J., "How Confident Are You to Win Your Fantasy League: Exploring the Antecedents and Consequences of Winning Expectancy", Journal of Sport Management, 24(4), 416-433 (2010).

Massari, M. G., "When fantasy meets reality: The clash between on-line fantasy sports providers and intellectual property rights", Harvard Journal of Law & Technology, 19(2), 443-465 (2006).

Otalvora, G. A., "Alfonso Soriano is getting robbed: Why the eighth circuit court of appeals made a bad call in C.B.C. Distribution and marketing V. Major League Baseball", Journal of Law, Technology & Policy, 2008(2), 383-407 (2008).

Roy, B. & Vincke, P., "Multicriteria analysis: survey and new directions", European Journal of Operational Research, 8(3), 207-218 (1981).

USE-ADOPTION GAPS IN FOOD RETAILING: HYPERMARKEYS, SUPERMARKETS AND TRADITIONAL FORMATS IN EMERGING ECONOMIES

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ABSTRACT

This research addresses the use adoption gaps in food retailing in the context of emerging economies. In particular, the study attempts to shed light on the intensity of use of hypermarkets by employing a new research approach. Thus, the study examines how various factors typically associated with food consumption, drive consumers to shop for food items across different food stores. The study employs data collected from a survey involving 433 households. The conceptual framework and hypothesis are tested using multiple regression analyses. The empirical results support our claim that the research approach applied in this study better explains the use-adoption gap in food retailing.

INTRODUCTION

Modern food retail formats are diffusing fast into emerging economies. To take the example of Jordan, in the early 1980s Jordan had no supermarkets. Since then supermarkets have diffused across main cities and are expanding into small towns and beyond, to the rural areas. Some foreign retailers, particularly Carrefour and Spinneys Group, as well as scores of local supermarket firms operate in Jordan. Jordanian consumers can choose from an array of supermarket formats including small, medium size, hypermarket and cash and carry. Supermarket adoption levels are relatively high. For example, a study by Hino (2010) finds over 68% of Jordanian households shop regularly at hypermarkets and/or supermarkets.

Supermarkets' market share in consumers' overall expenditures for food, grocery and FMCG is substantial but is lower than that found in the developed economies. Our consumer shopping behavior study, discussed in this paper, involving 433 Jordanian households finds hypermarkets and supermarkets capture 35% of consumers' weekly expenditures for these items. The important phenomenon, at the center of this research, is that the modern formats' share varies across product groups. It is high in the packaged, processed and non-food (60%) categories but is low in the fresh food categories (15%). Clearly, supermarket and hypermarket adoption does not entail a shift into a "one stop" shopping pattern where consumers buy there all their food, grocery and other FMCG needs. Adoption is often associated with partial and selective use of the modern formats. Many consumers shop regularly in the modern formats but they typically continue to buy important product categories in the traditional outlets. There is mounting evidence that these patterns are not unique to Jordan. They exist all over emerging economies. Moreover, not only in emerging markets but also in the non-Western developed economies, such as Hong Kong, Taiwan and Singapore (Goldman et al 2002; Coca Cola Retail research Council, 2005). The magnitude and nature of the gap between consumers' adoption of the modern formats and their use varies across product categories. It also varies across the different supermarket formats.

The study of this phenomenon is of major importance. A use-adoption gap signals a weakness of the modern format and acts as a barrier to supermarkets market share growth. Public policy makers and retail planners are interested in accelerating retail modernization: the process where the advanced supermarket technologies replace the outmoded and inefficient traditional formats and practices. The appearance of a use-adoption gap signals a break in the modernization process. An understanding of the reasons will help them fix the problem and lead to the continuation of the modernization process. For retail executives the gap indicates a failure in strategy or execution. An understanding of the reasons why supermarkets in general or

particular supermarket formats were unable to outperform the traditional outlets in some product areas is the first step in the process of rectifying the problem. Finally, for researchers studying the retail globalization process the use-adoption gap signals a failure of the replication strategy involving the as is transfer of advanced supermarket technologies into the emerging economies. The study of the reasons for the failure of these technologies will yield insights into the retail technology transfer issue and the process of retail globalization.

The idea that adoption does not tell the whole story and need to be complemented by examining how the innovation is used has received some recent research attention. Shih & Venkatesh (2004) have developed a use-diffusion model and tested it in the context of home computers. They looked at variety and rate of use and identified consumer segments displaying different use-diffusion patterns. We build on their work and especially on their use typology. However, the differences in research setting and research questions leads to a different conceptual framework, hypotheses and research design.

We study the use -adoption gap in the context of supermarket and hypermarket diffusion into emerging markets. The specific research issues we study are as follows: 1) Identification of the types of use-adoption gaps in supermarket retailing and an analysis of their nature; 2) The determinants of these gaps; 3) The implications for retail public policy, strategy and management and retail technology transfer.

The role of the use-adoption gap in supermarkets' diffusion process

The first step in the diffusion process involves supermarkets becoming accessible to consumers. Consumers enjoying accessibility may adopt or reject supermarket shopping. *Adoption* is defined as regular use of the supermarket formats. Consumers who adopt the supermarket formats can spend there a small or large proportion of their household's expenditures. This share of household expenditure component is a function of the supermarkets' usage pattern. Usage consists of two shopping behavior components. The "*intensity of use*" is the proportion of shopping trips out of the number of trips that a consumer directs to supermarkets. The "*category use*" is the proportion of product lines purchased by a consumer in the supermarket out of the total purchased. When only a small proportion of the shopping trips are directed to supermarket formats and/or consumers buy there only few of their product needs, the share will be low. The *use-adoption gap* may relate to the category use component and/or to the intensity of use. The gap occurs when consumers who adopted the supermarket shopping buy there only a small proportion of their needs and/or direct only a small proportion of their shopping trips to supermarkets. Supermarkets' overall market share will be high when diffusion is complete; most consumers adopt supermarket shopping and when the adopting consumers spend a high proportion of their budget for the relevant products in supermarkets. The use-adoption gap is important because it is a major determinant of the budget allocation construct.

Supermarket formats: use patterns and use-adoption gap scenarios

Our focus is the consumers who have adopted supermarket formats. We study their patterns of supermarket use. In this section we identify four supermarkets use patterns. These represent Hi and Lo positions on the two supermarket shopping behavior components: "*intensity of use*" and "*category use*". In the next section we discuss the determinants of each dimension and suggest hypotheses. We then discuss the conditions associated with each pattern and suggest hypotheses. Note that these patterns may relate to "supermarket formats" in general or to specific formats such as the hypermarket or the small supermarket. The first approach is relevant in the context of an economy where food retailing is at its earlier stages of development. This is at present the case in Vietnam and India and was the case in China in the early 1990s. The second approach is relevant in emerging economies, such as Jordan and Turkey, where supermarket diffusion is well advanced. In this study we focus on studying formats. Specifically, we study the use-adoption gap in the case of hypermarkets and small supermarkets.

The "*full*" supermarket use pattern describes a situation where consumers direct a high proportion of their shopping trips to supermarket formats and buy there a large proportion of their needs. This pattern represents the "one stop" supermarket shopping model. In this situation no use-adoption gap exists.

The "*selective*" supermarket use pattern describes a scenario where supermarket formats receive a large proportion of consumers' shopping trips but consumers buy there only a small proportion of their product needs. A use-adoption gap exists in this situation. It is caused by consumers' tendency to buy some product categories in the traditional outlets. This scenario indicates a failure of the modern supermarket

formats to compete in these product categories against the traditional formats. In emerging countries these are often the fresh food categories.

"*Constrained*" use pattern occurs when only a small proportion of consumers' shopping trips are directed to supermarket formats but at the occasions when they do shop there they purchase there most of their food needs. This situation is likely to reflect accessibility difficulties. Consumers' strategy in this condition is to combine a few major supermarket trips per month with frequent supplementary purchases of daily products in the traditional formats near home. Increased supermarket diffusion or change in consumers' mobility is likely to shift these consumers to the full use pattern. In this scenario no use-adoption problem exists.

The "*marginal*" use scenario relates to situations where only few of consumers' shopping trips are directed to supermarket formats and in these trips they buy there only a small proportion of their needs. The use-adoption gap here is severe. Supermarkets play a marginal role for these consumers. This scenario is most relevant when studying the strength and weaknesses of different supermarket sub formats. As will be discussed in the body of the paper we believe it is typical of the small local supermarket format which, in emerging markets, is much weaker than the hypermarkets.

The full use scenario characterizes supermarket retailing in the developed Western economies. It is the template for a successful transfer of the supermarket technology. Public policy makers, retail planners, retail executives and global retail researchers expect the full use scenario to eventually dominate. In this situation no use-adoption gap exists and supermarkets' market share growth is not constrained by a use problem. Deviations from a full use pattern signal a problem. It may involve a use-adoption issue as in the selective and marginal use cases or an accessibility-diffusion issue as in the constrained use scenario.

Our two dimensions of supermarket use and the classification of use patterns provide a starting point for an in depth study of the use issue and the circumstances associated with each dimension and use pattern. Each of the three use patterns signals a different type of supermarket weakness. Underlying the "full" use pattern is a situation where the two dimensions interact thus enhancing each other: buying all the needs in the format (category use) increases its attraction and thus the proportion of shopping trips directed towards it (intensity). On the other hand shopping frequently in the format increases the likelihood of buying there more product line (category use). However, in the situations underlying the three other use patterns the two dimensions are not correlated.

We study these patterns and their determinants. Specifically we develop and test hypotheses relating to the following types of factors: 1) The distance factor; 2) The household's socioeconomic and demographic factors; 3) The type and levels of outputs delivered by the format; 4) The format's performance across product categories; 5) Consumers' food culture and its impact on the demand for freshness;

Determinants

The likelihood of shopping at a format (store) is the typical dependent variable in the store and format choice literature. Our focus is different as we study both the intensity of format use and the category use. The intensity of format use can be viewed as corresponding to the likelihood of shopping variable. The category use adds the product category dimension to the model. This is a more realistic view of reality as the format's market share depends on both intensity and category use.

The determinants studied in the store and format choice literature are relevant for us. Some of the determinants impact both the intensity and category use dimensions similarly; others influence both but in an opposing manner and still other impact only one dimension. Following we discuss the determinants, explain how they impact each dimension and suggest hypotheses summarizing the impact. In the case of emerging markets such as Jordan, hypermarkets typically compete in the fresh categories with the traditional formats of traditional markets and local fresh food stores. They compete in the other categories with other supermarket formats. Our focus is mostly on hypermarkets vs. the traditional formats (fresh categories) and vs. the supermarkets (the non fresh categories).

Determinants of the intensity of use dimension

The proportion of shopping trips directed towards the supermarket or hypermarket over a certain time period is the relevant variable. It is a function of the utility it delivers to the consumer relative to the alternative formats. The store and format choice literatures identified consumer state variables that impact consumers'

utility and format choice. The relevant ones include travel costs, cost of time, the demand for freshness, variety and depth, storage constraints, household income and size. The format related variables studied include format attraction and image, the number of categories offered, the number of categories purchased (our category use dimension) and the format's price strategies and image. Finally, an increasing number of researchers study product perishability.

Travel costs/distance: This determinant relates to the spatial accessibility of the format and its impact on the use decision (Jones, Mothersbaugh, & Beatty, 2003). Low accessibility increases travel distance and costs and may lead to a smaller number of shopping trips (Bell, Ho, & Tang, 1998). Consumers no longer face "a supermarket" format. They typically face a number of formats. In a developing economy context the most relevant are the extremes of the local small supermarket and the hypermarket/cash and carry format. Local supermarkets and the traditional outlets are located nearer to consumers while hypermarkets further way. We expect therefore the distance factor to affect differently the intensity of use of supermarkets and hypermarkets.

H1A: (impact of the distance factor: hypermarkets vs. traditional formats). The greater the relative distance to hypermarkets (travel time/distance difference between the traditional format and the hypermarket) the greater is the proportion of shopping trips directed towards the traditional formats.

H1B: (hypermarkets vs. local supermarkets). The greater the relative distance to hypermarkets (travel time/distance difference between the small supermarket format and the hypermarket) the greater is the proportion of shopping trips directed towards the local supermarket.

Household's socioeconomic status: A large number of studies show that socioeconomic status variables such as income, education and size of apartment affect consumers' shopping propensity. The most relevant perspective is the household production approach (Becker, 1965; Betancourt & Gautschi, 1990; Messinger & Narasimhan, 1997; Goldman et al., 2002; Hoch et al., 1995). This framework suggests that a household's opportunity cost of time (time more or less valuable), storage costs and consumer ability to buy larger quantities influences consumers' tendency to shop in modern formats. Consumers high on these variables will conduct fewer shopping trip and buy larger amounts in each trip. In this case too we expect these variables to make a stronger impact in the case of hypermarket than on local formats.

H2A: (impact of income and education). A higher opportunity cost of time (income and education) is positively related to the propensity to direct shopping trips towards hypermarkets.

H2B: The ability to purchase in larger quantities (size of apartment and mobility) is positively related to the tendency to direct shopping trips towards hypermarkets.

Format outputs: In an emerging country context the modern formats are assumed to attract consumers away from the traditional formats because of their shopping environment advantages. These include a comfortable and interesting shopping atmosphere, order, easy to find items, cleanliness, tidiness, hygiene, trusted and helpful staff, and few stock outs. These reflect modern formats' use of advanced retail technologies and their ability to generate cost and scope economies (Briesch, Chintagunta, & Fox, 2009; Fox, Montgomery, & Lodish, 2004; Goldman, Ramaswami, & Krider, 2002; Hino, 2010). In reality the gap in outputs between the modern and traditional formats may be small. The modern formats may be viewed as similar or even inferior to traditional outlets. An additional and highly important output is price. Retail planners, experts and retail globalization researchers often assume that the superior technologies and systems transferred by supermarket firms will provide the modern formats with a substantial competitive advantage over the traditional format retailers using simple and outmoded retail technologies. However, modern formats often encounter conditions in emerging markets that make it difficult and costly to operate the transferred technologies. Consequently the modern formats are often forced to charge higher prices for marginally improved outputs. Similarly we may find cases where consumers put little value on many of the outputs associated with the modern formats focusing only on the price. The traditional formats employing low cost retail technologies enjoy an advantage in these situations. Finally, traditional markets' modernization programs may help traditional formats close these gaps with the modern formats. Hypermarkets are much larger than supermarkets and therefore can provide higher levels on these outputs at lower costs than local supermarkets. Local supermarkets find themselves especially vulnerable. They are unable to provide substantially improved outputs compared to the traditional formats but their cost structure forces them to charge higher prices. They, in effect, are squeezed between the hypermarkets and the traditional formats.

H3A: (Store outputs: hypermarkets vs. traditional formats). Consumers who view hypermarkets as similar to traditional formats in their store outputs are less likely to shop in hypermarkets.

H3B: (store outputs: hypermarkets vs. local supermarkets). Consumers who view hypermarkets as similar to local supermarkets in their store outputs are less likely to shop in hypermarkets.

H3C: (Price: hypermarkets vs. traditional formats). Consumers who view hypermarkets as being higher in price compared to the traditional formats are more likely to shop in traditional formats.

H3D: (Price: hypermarkets vs. local supermarkets). Consumers who view hypermarkets as being higher in price compared to local supermarkets are more likely to shop in local supermarkets.

The category use dimension: The typical category use pattern in the developed Western economies is that of "full use" (figure 1). In this situation consumers buy most of their product needs in the large supermarkets using other formats (convenience stores, local supermarkets) for supplementary purchases. The "selective" and "marginal" use patterns (figure 1) is mostly found in emerging economies and is mostly associated with fresh food (vegetables, meat, poultry, fruits, fish and bakery). This pattern was studied before (e.g. Goldman et al. 2002; Goldman & Hino 2005). This use-adoption gap was attributed to demand and supply side reasons. On the consumer side it reflects the nature of the demand for fresh ingredients. This demand is shaped by the society's food culture. This construct relates to the values and practices associated with food consumption and shopping. It consists of meal eating and preparation habits, the role of fresh ingredients in the cuisine and of food in the culture, the definition of freshness and the social context of eating and shopping (Hino, 2010; Sinha & Banerjee 2004; Veeck & Burns 2005). On the supply side it reflects supermarkets' inability to leverage their advanced supply arrangements in the conditions prevailing in emerging economies leading them to lag traditional formats in price and variety (Goldman et al. 1999; Hansen, 2003; Reardon et al. 2004).

Differences across formats: The nature and magnitude of the category use gap may vary across different supermarket formats: the larger hypermarkets are in a stronger position in the fresh categories than the small supermarkets. Supply side problems and size limitations limit the small supermarkets' ability to offer a selection matching the traditional formats in variety, freshness and price. They are in a much weaker position than hypermarkets. On the other hand the local supermarkets enjoy a proximity advantage over the more distant hypermarkets. This is an important consideration in situations where the demand for freshness and the daily cooking at home leads consumers to make frequent, often daily, shopping trips to buy the fresh categories.

Hypermarkets in emerging markets, especially in South Asia and the Middle East, increasingly copy traditional markets in their merchandising approach. They adapt to consumers' habits. Also, their size enables them to be supplied directly, not through a distribution center system. Thus, they can more easily adapt to the traditional supply arrangements. These considerations explain why, compared to the small supermarkets, they are better able to compete with the traditional formats in variety and freshness. They continue to suffer however from distance and price disadvantages.

Demand side causes of differences among fresh food items: The tendency not to buy fresh in the modern formats may vary across the fresh food categories, reflecting consumer and/or supply considerations. As to consumers, the position of some fresh food items in consumers' food culture may be less entrenched. In these cases consumers may choose to use non fresh forms of the products (e.g. frozen, chilled). For example, the regional cuisine variability in Arab food culture means that fresh items that are an important part of the cuisine in some regions are of marginal importance in others. Affluence, improved transportation and removal of cross regional trade barriers leads consumers to use fresh items from other regions that are not strongly anchored in their regional cuisine. Similarly, in the past seasonal scarcity of some food items increased the legitimacy of consuming these items in a frozen or preserved form. These types of products need not be purchased frequently and/or in a strictly fresh form. Hypermarkets and supermarkets are in an equal or even stronger position than traditional formats to offer these products.

Supply and distribution side causes of differences among fresh food items: Supply side factors were shown to be the major reason for supermarkets' weakness in the fresh categories in emerging economies (Goldman et al, 2002; Reardon et al, 2004). Studies show that supermarkets are unable effectively use their advanced fresh food supply and distribution technologies. These technologies and systems are largely ineffective in an environment where traditional agriculture production, distribution and supply arrangements persist. They are forced to use the same supply arrangements as the traditional formats. They end up offering consumers the same or lower levels of fresh outputs for higher prices. This gap between the modern technologies and supply conditions vary across different fresh food categories. The production and distribution conditions of some fresh products change faster towards conditions more favorable to the use of the advanced technologies. This happens in situations where production and distribution is handled by large units in a semi industrial manner. Research in a number of emerging countries (Reardon et al., 2004) finds this to be the case in two products: pork meat (large pork processing

facilities and cool chains) and fruits (large packing houses, often transported across regions or imported from foreign countries). In these cases the output and price gaps between the modern and traditional formats decreases fast.

Consumers' food culture: Consumers who mostly eat home cooked meals, use traditional preparation methods and eat traditional dishes often put high value on the use of fresh ingredients. They demand a large variety of fresh ingredients, are likely to shop frequently for fresh items and be highly sensitive to the level of outputs and services the store provides. Studies (Goldman et al. 1999; Coca Cola, 2005; Veeck & Burns 2005) and anecdotal evidence indicate that these "traditional" shoppers prefer buying in the traditional formats viewed as better able to supply them with outperform the variety, freshness, price and proximity outputs they require. The above means that consumers who do not follow these traditional food culture habits are less likely to shop for fresh in the traditional formats.

H4A: (hypermarkets vs. traditional formats). The probability of shopping for a given product in hypermarkets rather than in traditional formats is lower if the product is fresh.

H4B: (hypermarkets vs. small supermarkets). The probability of shopping for a given product in hypermarkets rather than small supermarkets is larger if the product is fresh.

H4C: (supermarkets vs. traditional formats). The probability of shopping for a given product in local supermarkets rather than in traditional formats is lower if the product is fresh.

H5: (meat and fruit vs. the other fresh food categories). The probability of shopping for meat and fruit in hypermarkets rather than in traditional formats is larger than the probability of shopping there for the other fresh food categories.

H6A: Consumers who show a stronger tendency to eat traditional meals are more likely to shop for fresh food in the traditional formats.

H6B: Consumers who emphasize the importance of using fresh ingredients in their meal are more likely to shop for fresh food in traditional formats.

APPLICATION

Jordan presents an ideal setting for conducting this research. Supermarket is relatively new in Jordan but in the short period since their appearance they have diffused fast. Two international supermarket companies operate in Jordan competing against scores of Jordanian supermarket firms. All supermarket formats, with the exception of the limited line discounters, operate in Jordan. 664 hypermarkets and supermarkets are estimated to operate in Jordan. Consumers can choose to buy in local supermarkets in hypermarkets or in large supermarkets. Data collected shows supermarkets and hypermarkets' adoption levels to be relatively high (68%). Yet, in spite the progress supermarkets' market share remains relatively low. The low market shares may reflect limited diffusion or the existence of a use-adoption gap. It is generally accepted that diffusion is almost complete. Our data shows that consumers in each of the three major cities we studied do indeed enjoy high accessibility to the various supermarket formats. Specifically, 65% of households report that supermarkets and hypermarkets are located, respectively, at a distance of 8 and 17 minutes from their homes. Some variations existed across the three cities in the accessibility of specific supermarket formats reflecting differences in retail structure. However, the general picture remains that of a relatively high level of diffusion of the supermarket formats. These modern formats operate along side a strong traditional retail system. Traditional formats are especially important in the retailing of fresh food dominated by traditional markets and local specialized fresh food stores.

The data clearly shows the existence of a strong user-adoption gap involving the fresh food categories. Specifically our study shows that the three modern formats (small, medium-large supermarkets and the hypermarkets) capture 60% of consumers' expenditures on packaged/processed food but they account only for 15.8% of the. This situation makes Jordan an ideal place to study the use-adoption problem.

RESEARCH DESIGN AND METHODOLOGY

For the purpose of data collection, we conducted a consumer shopping behavior study in Jordan. It included a stratified sample of 433 households selected from the three large governorates (Amman, Irbid, and Zarqa). The number of households selected in each residential area was proportional to its relative size. Also, the distribution of each sample among the geographical areas reflected the distribution of the three research populations, respectively. The person in each household responsible for most food and grocery shopping was interviewed. The field work was conducted by professional research company specializing in collecting data from representative samples. The interview process was closely supervised monitored by us. The questionnaire consisted of 35 questions and took about an hour to complete. The respondents were asked

about their adoption of the different modern supermarket formats, the formats (modern and traditional) in which they shopped for each of 15 product lines, their budget allocation among the formats, distances and travel time to each format, frequency of shopping and time of shopping. They were then asked about their evaluations of each of the formats in general and in reference to the particular product lines. In addition we collected detailed information about consumers' food culture: meal preparation and eating habits and the use of fresh, processed and frozen ingredients. Finally we collected demographic and socioeconomic data about the household as well as its structure. The product lines studied included packaged and processed food, non food items and six fresh food categories (vegetables, fruits, meat, poultry, fish and bakery). The questionnaire construction followed the procedures recommended in cross cultural research (e.g. Craig and Douglas, 2000; Hui and Triandis, 1985). The questions were first written in English translated into Arabic then again to English to identify problems. It was then pre tested in Jordan on 15 consumers, refined and translated again to English. A bilingual research assistant was closely involved at all stages identifying and resolving the cases where the Arabic concepts did not convey the original intentions.

DESCRIPTIVE STATISTICS

Demographics: 52% of respondents were females. The averages for age, education and income were, respectively, 38, 12.9 years of schooling and \$552 per month. The average home size was 3.54 rooms with an average density of 1.64 persons per room. In addition, over 42% of the respondents owned at least one car. Most respondents (98%) owned a refrigerator and 67% owned a cell phone.

Shopping patterns: We interviewed only consumers who regularly shopped in hypermarkets but adoption rates for the other supermarket formats varied: 65% adopted small supermarkets, 47% medium/large supermarkets and 46% hypermarkets. The average time to reach traditional markets, specialized food stores and the small supermarkets was 3.1, 7.5 and 9.8 minutes, respectively. These were clearly the local formats. The average time to the larger supermarkets and hypermarkets was almost double, 8.4 (SD 6.16) and 18 (SD 8.99) minutes, respectively. Consumers mostly (55%) walked to the three local formats: traditional markets, specialized stores and small supermarkets. Finally, respondents shopped an average of 3-4 times per month in the supermarket formats (2.1 in hypermarkets, 4.2 in medium/large supermarkets, and 1.2 in small supermarkets), 5.5 times (almost daily) in local specialized stores and 4.2 in traditional markets.

Food culture: Most respondents eat their main daily meal at home (5.8 times a week). These are cooked at home and mostly consist of freshly made traditional dishes (79%). The ingredients used in preparing these dishes are mostly fresh (on average 77.4% of the ingredients). Frozen, processed and precooked items play a much smaller role: average use of 11.7%, 3.9% and 11%, respectively.

Formats and product lines: Consumers shopped regularly in a number of formats: an average of between 1.7 formats to 2.55 for each of the product lines. Respondents designated traditional markets and the local specialty fresh food stores, rather than the hypermarkets and large supermarkets, as their main format for the fresh food categories: 86% for vegetables (6% hypermarkets and 5% large supermarkets) 69% for fruit (hypermarkets 20% and large supermarkets 10%), 56% for meat (30% hypermarkets, 12% large supermarkets), 65% for poultry (hypermarkets 21% and large supermarkets 10%), 69% for fish (hypermarkets 19%, large supermarkets 9%) and 43% bakery (hypermarkets 38%, large supermarkets, 14%). Hypermarkets and supermarkets are viewed as the most important formats for purchasing packaged food (60%), for pre-prepared, cooked and deli food (39%, 33%, respectively) and for non-food (65%, 41%, respectively). Consumers spend an average of \$72.6 per week on food and daily necessities. A very high proportion of these expenditures, 55% is spent on the fresh food categories.

FINDINGS

We estimated the effect of the different variables in a nested fashion. We first included travel time, then socioeconomic variables, next the perceptions of store attributes, then the perishability variable and finally added the meal preparation variables. The hypotheses were evaluated in the general model. Also, the sign and significance level of the coefficients in all six types of variables and the differences in goodness of fit, as each variable set is incrementally added, indicate the relative contribution of each to the overall explanatory power of the model. We also included a constant to capture the residual preference for supermarkets after controlling for all six variable groups. Estimates for the models appear in Table 1 and Table 2.

Factors affecting Use-adoption gaps: Travel time distance

The travel time difference coefficient is significant ($p < 0.001$) and negative (-0.39). Also, the marginal contribution of this variable to the explanatory power of the model is relatively high; $R^2 = 0.15$, (see model 1, Table1). The negative sign for distance indicates that as the relative travel time to hypermarkets increases, the proportion of the shopping trips directed towards hypermarkets decreases, respectively. Accordingly, H1A is supported.

Travel distance: hypermarkets vs. supermarkets: Model 1 (Table2) tests the hypothesis relating to the expected negative impact of the relative travel distance difference between the supermarket format and the hypermarket on the likelihood of buying in hypermarkets. Our data supports H1B. The coefficient for travel distance is significant ($p < 0.001$) and negative (-0.25) thus decreasing the proportion of product lines consumers purchase at hypermarkets.

Socio economic variables: We use consumer cost of time, household mobility, and housing density (persons per room) as consumer economic characteristics. The regression model for these variables was found to be significant and with the expected coefficient signs, thus supporting H2A and H2B (see model 2, Table 1). These results indicate that consumers who enjoy a relatively high socio-economic status tend to conduct large purchases at large formats such as the hypermarket.

Format outputs: Model 3 (Table1) evaluates the impact of format outputs (store outputs and price) on the intensity of hypermarkets use. This is relatively high in the current study: R^2 increased by 5.5% (from 31.5% in model 2 to 37% in model 3). In addition, coefficients of the two variables were significant ($p < .01$) with the expected direction (Model3, Table2), thus supporting H3A and H3B. This means that consumers tend to shop at hypermarkets when these formats provide better outputs and low prices compared to traditional outlets.

The impact of store outputs differs across the modern food formats (hypermarket vs. supermarket). The regression model (model2, Table 2) points to the significant impact for this variable, which means that the hypermarket stores provide higher levels on these outputs. Accordingly, H3B is not supported. Research results regarding the price variable support H3D. The negative sign for price indicates that consumers view hypermarkets as being higher in price compared to local supermarkets (model2, Table 1). Hence, they are more likely to shop in local supermarkets.

The role of the perishable category: In model 4 (Table 1), the fresh food category is supported by a strong, negative coefficient for perishability showing that fresh food items are more likely to be purchased at traditional formats. Accordingly, H4A is supported. The impact of the perishable category differs across modern food formats (hypermarket vs. supermarket). The regression model (model3, Table 2) indicates no significant impact for this variable. This means that hypermarkets do not provide higher levels on the perishable products compared to supermarkets. Accordingly, H4B is not supported.

The use-adoption gap: Differences among fresh products (meat and fruits vs. other fresh items) have no significant impact on the intensity of use of hypermarkets, see model 4, Table 1. This means that consumers do not view hypermarkets as providing higher levels of freshness and quality in meat, vegetables and fruit products compared to traditional outlets. Therefore, H5 is not supported.

Table 1: Multiple regression models: hypermarkets vs. traditional stores (Parameter estimates¹)

	Expected coefficient sign	Model1 Distance	Model2 Economic variables	Model3 Model1+Format outputs	Model4 Model3+ Category use	Model5 Model3+Cultural variables
Constant	+	.08**	.06**	.09**	.03*	.11**
Travel distance						
Distance	-	-.39**	-.26**	-.15**	-.12**	-.05
Economic vars.						
Mobility	+		.22**	.04	.01	.05
Density	-		-.18**	-.02	-.01	-.06
Cost of time	+		.46**	.48**	.4**	.28**
Format outputs						
Store outputs	+			.18**	.12**	.02*
Price levels	-			-.16**	-.2**	-.23**
Category use						
Fresh products	-				-.27**	-.14**

Category use						
Fresh products	-				-.27**	-.14**
Differences among fresh products	+				.21	.12
Food culture vars.						
Traditional meals	-					-.21**
Fresh ingredients in cooking	-					-.16**
R²		15.3%	31.5%	37%	41.6%	50.7%

(1) Beta coefficients presented in Table 1 are standardized.

(*) $\alpha \leq .05$; (**) $\alpha \leq .01$

Table 2: Multiple regression models: hypermarkets vs. supermarkets (Parameter estimates¹)

	Expected Coefficient sign	Model 1 Distance	Model 2 Model1+Format outputs	Model 3 Model3+ fresh perishables	Model45 Model3+Cultural variables
Constant	+	.56**	.48**	.38**	.77**
Travel distance					
Distance	-	-.26**	-.18**	-.13*	-.1
Format outputs					
Store outputs	+		.19**	.17**	.18**
Price levels	-		-.34**	-.3**	-.29**
Perishables categ.					
Fresh products	+			.18**	.12*
Food culture					
Traditional meals	-				-.14*
Fresh ingredients in cooking	-				-.11*
R²		6.7%	21.9%	24.6%	28%

(1) Beta coefficients presented in Table 2 are standardized.

(*) $\alpha \leq .05$; (**) $\alpha \leq .01$

Food culture variables: Finally, model 5 (Table1) captures the added impact of the underlying cultural factors influencing food preparation and consumption habits. Hypotheses 6A and 6B are supported by the negative and significant coefficients of the two food preparation variables (type of meals and the use of fresh ingredients in food preparation). Furthermore, results point to a relatively high contribution to the explanatory power of the model: R² rose from 41.6% in model 4 to 50.7% in model 5.

DISCUSSION

The analyses demonstrate that the final model (model 5, Table 1) has a high explanatory power that matches the data. The model has F value of 38.17 which is significant at the 0.00 level. Moreover, the adjusted R² is relatively high: 49.4%. The findings also indicate that most of the explicative variables have significant effects and most hypotheses are supported by the data, thus providing empirical evidence in support of our theoretical framework. This also means that our model was able to capture most of the factors impacting the use-adoption gaps across the different food formats. We interpret the significant and positive constant (intercept) in the overall model (model 5, Table 1) as indicating that after controlling for all the variables included in the model there is a general underlying preference among the study population for the hypermarket format. This conclusion is supported by the perception of the hypermarket viewed as providing superior outputs compared to supermarkets traditional outlets.

values when they enjoy relatively low standards of living. If this is the case, economic and store output factors are expected to continue determining the intensity of use of the modern food formats.

SUMMARY AND CONCLUSIONS

Many earlier studies carried out in non-Western economies (e.g., Goldman et al., 2002; Goldman & Hino, 2005; Hino, 2010; Maruyama & Trung, 2007; Sinha & Banerjee, 2004) documented the tendency of consumers to display food shopping patterns that differ from those of consumers in Western developed countries. They shop frequently at traditional outlets for selected food categories rather than concentrating most of their food purchases in the mainstream modern supermarkets and hypermarkets.

Our focus in this paper is different as we study both the intensity of format use and the category use. The intensity of format use can be viewed as corresponding to the likelihood of shopping behavior. The category use adds the differences across the product category dimension to the model. This is a more realistic view of food shopping behavior as the format's market share depends on both intensity and category use.

The empirical results of the analysis lead to a number of conclusions. Firstly, our data found incomplete geographical diffusion of the prevailing hypermarket formats. Hence, travel time distance appears to constitute one of the major factors limiting the intensity of use of hypermarkets. If this the case, opening hypermarket stores in an increasing number of locations can positively affect hypermarkets' market share. Secondly, consumer socio-economic status and format outputs comprise additional barriers limiting hypermarket formats' use. In such cases significant improvements in consumer's economic abilities, as well as providing further improvements in format outputs, such as the offering of a wide variety of fresh and non-perishable product lines in relatively low prices are expected to increase the intensity of hypermarkets' use.

The study highlights the role of perishables. Perishable goods remain more likely to be purchased at traditional markets and specialized stores than either hypermarkets or conventional supermarkets with the latter a lesser choice for fresh products. Underlying the tendency to buy these products in traditional outlets are culturally determined food preparation and consumption patterns. Furthermore, cultural values provide within the context of food consumption, further insights regarding consumers' preferences for shopping for fresh food items. In our study, Jordanian families tend to prepare and eat family meals at home on a daily basis, in line with traditional directives. They look with suspicion on processed, frozen, and precooked foods, and view meals prepared from natural and fresh ingredients as healthier and safer. These findings pose a major strategic challenge for hypermarket executives. They need to develop new formats that will cater better than the present hypermarket formats to the particular needs of these consumers. The design of these formats should be based on the identification of the relevant attributes of the specialized traditional formats that make them so attractive to consumers.

LIMITATIONS AND FUTURE RESEARCH

We believe this study increases our understanding of the role of the use-adoption gap in hypermarkets' diffusion process; at the same time, it is subject to some limitations related to the generalization of the findings – but this, in turn, can provide avenues for future research.

The first limitation is that, because this study concentrates on relatively one country – extrapolation of the findings may be limited. Our approach, however, has been designed so that it can readily be applied to the study shopping patterns of consumers in other geographical areas as well, especially non-Western economies, thus testing the extent to which the conceptual framework can be generalized effectively.

The current study highlights the impact of the perishable product categories on modern formats diffusion in emerging economies. To address this issue, there is a need for further analysis of consumer behavior, supply infrastructure and public policy. Another avenue for future research refers to the different roles convenience supermarkets and hypermarkets play in food shopping. Future research could shed further light on the conditions for success of each format and its role in the retailing system.

Finally, in order to get better insights into the influence of consumers' food culture relatively to other cultures, a cross-cultural study that involves consumers from different ethnic and cultural affiliations is

recommended. Such a study would yield research results that are more comparable and would provide a better understanding of the role played by cultural values in shaping consumers' consumption systems.

REFERENCES

- Becker, G. (1965). A theory of the allocation of time", *The Economic Journal*, 75, 493-517.
- Bell, D., Ho, T. & Tang, C. (1998). Determining where to shop: fixed and variable costs of shopping. *Journal of Marketing Research*, 35, 3, 352-369.
- Betancourt, R., & Gautschi, D.A. (1990). Demand complementarities, household production and retail assortments. *Marketing Science*, 9, 146-161.
- Briesch, R.A., Chintagunta, p. & Fox, E. (2009). How Does Assortment Affect Grocery Store Choice? *Journal of Marketing Research*, 46, 2, 176-189.
- Coca Cola: Retailing Research Council-Asia (2005). The Fresh Imperative. *Coca Cola*, Hong Kong.
- Craig, C.S., & Douglas, S. P. (2000). *International Marketing Research*, Second ed., Wiley, New York.
- Fox, E.J., Montgomery, A.L. & Lodish, L.M. (2004). Consumer Shopping and Spending across Retail Formats. *Journal of Business*, 77, 2, S25-S60.
- Goldman, A., Krider, R., & Ramaswami, S. (1999). The Persistent Competitive Advantage of Traditional Food Retailers in Asia: Wet Markets 'Continued Dominance in Hong Kong. *Journal of Macromarketing*, 19, 126-139.
- Goldman, A. (2001). The transfer of Retail Formats into Developing Economies: The example of China. *Journal of Retailing*, 77, 221-242.
- Goldman, A., Ramaswami, S. & Krider, R. (2002). Barriers to the Advancement of Modern Food Retail Formats(China): Theory and Measurement. *Journal of Retailing*, 78, 4, 21-295.
- Goldman, A., & Hino H. (2005). Supermarkets Vs. Traditional Retail Formats: Diagnosing the Barriers to Supermarket Market Share Growth. *Journal of Retailing and Consumer Services*, 12, 273-284.
- Hansen, T. (2003). Intertype competition: specialty food stores competing with supermarkets, *Journal of Retailing and Consumer Services*, 10, 1, 35-49.
- Hino, H. (2010). Antecedents of supermarket formats' adoption and usage: A study in the context of non-western customers, *Journal of Retailing and Consumer Services*, 17, 1, 61-72.
- Hoch, S.J., Kim, B., Montgomery, A., & Rossi P.E. (1995). Determinants of Store -level price elasticity. *Journal of Marketing research*, 32, 17-29.
- Hui, C.H., & Triandis, H.C. (1985). Measurement in cross cultural psychology: a review and comparison of strategies. *Journal of Cross Cultural Psychology*, 16, 131-152.
- Jones, M.A., Mothersbaugh, D.L., & Beatty, S.E. (2003). The effects of locational convenience on customer repurchase intentions across service types. *Journal of Services Marketing*, 17, 7, 701-712.
- Maruyama, M., & Trung, L.V. (2007). Traditional bazaar or supermarkets: a probit analysis of affluent consumer perceptions in Hanoi. *International Review of Retail, Distribution and Consumer Research*, 17, 3, 233-252.
- Messinger, P.R., & Narasimhan, C. (1997). A model of retail formats based on consumer economizing on shopping time. *Marketing Science*, 16, 1, 1-23.

Reardon, T., Timmer, P., Barrett, C., & Berdegue, J. (2003). The Rise of supermarkets in Africa, Asia, and Latin America. *American Journal of Agricultural Economics*, 5,1140-1146.

Shih, C-F., & Venkatesh, A. (2004). Beyond Adoption: Development and Application of a Use-Diffusion Model. *Journal of Marketing* , 68, 59-72.

Sinha, P., & Banerjee, A. (2004). Store choice behavior in an evolving market. *International Journal of Retail & Distribution Management*, 32,10, 482-494.

Veeck, A., & Burns, A. (2005). Changing tastes: the adoption of new food choices in post-reform China. *Journal of Business Research*, 58,5, 644-652.

PROTECTING RADICAL INNOVATIONS IN DOMESTIC AND INTERNATIONAL MARKETS

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ABSTRACT

The increasingly tight connections between innovation and internationalization, and critical factors in this setting warrant more research. In this study, the focus is turned to protection different types of radical innovations in international and domestic markets. Our results based on literature review and empirical examination of data from 209 firms indicate that while protection mechanisms are typically stronger in internationalized firms than in domestic ones, there are differences with regard to the individual mechanisms that protect different types of innovations in both types of markets. Acknowledging this allows managers to prepare better for utilizing innovations and conducting innovation activities abroad, and helping their firms to grow internationally.

INTRODUCTION

An overview of recent literature shows that internationalization and innovation are linked to each other to an increasing extent (e.g., Dunning 1993, Frenz et al. 2005, Howells 1995, Kafouros et al. 2008, Pla-Barber and Alegre 2007, Salomon and Shaver 2005, Zahra and George 2002). Innovative products and services have the potential to promote growth and expansion of firms to new markets, and innovation activities are conducted increasingly in foreign locations in order to improve learning and allow utilizing valuable, yet dispersed knowledge more efficiently (Filippetti et al. 2011). In fact, prior studies have suggested that internationalization yields more radical innovations (Frenz et al. 2005), which can in turn generate new revenue streams. However, considering that competition is likely to intensify in international markets, preserving uniqueness and differentiation for the internationally operating innovator needs to be paid attention to as well. Therefore, protection and innovation appropriation issues become highlighted (Feinberg and Gupta 2004, Gassmann and Keupp 2007, Hurmelinna-Laukkanen et al. 2012, Oxley and Sampson 2004).

Research has been conducted on the relationship between internationalization and innovation (e.g. Cassiman et al. 2011, Golovko and Valentini 2011, Kafouros et al. 2008, Knigh and Cavusgil 2004), including also the types of innovation to some extent (e.g., Frenz et al. 2005). Likewise, the relationships between protection (or appropriation) of intellectual assets and internationalization (Baughn et al. 1997, Delerue and Lejeune 2011, Jain 1996, McGaughey et al. 2000, McGaughey 2002), and innovation protection (and appropriability) and innovation performance in general (e.g., Cohen 1995, Jantunen and Hurmelinna 2005) have been examined, and there are few studies that have considered the effects of protection on different types of innovations as well (e.g., Hurmelinna-Laukkanen et al. 2008, Levin et al. 1987). However, as internationalization, radical innovation, and protection issues have not been systematically researched in the same setting, there is a need for more research that would examine the interplay of types of radical innovation and innovation protection in international context.

In this study, we aim to address this gap in the extant research and examine *how different types of radical innovation can be effectively protected against imitation in domestic and international firms with certain protection mechanisms*. In exploring this issue, we focus on three types of radical innovations, i.e., technology, market, and business-model innovations, and seven different types of protection and innovation appropriation, i.e., intellectual property rights (IPRs), contracts, employment legislation, human resource management (HRM), secrecy, lead time, and tacitness of knowledge. We start our examination with theoretical discussion on international innovation environment. Following this, we move on to explore

empirically the strength of different appropriability mechanisms in firms that operate in domestic and international markets. This first stage of examination precedes examination of the match between the different forms of protection and different types of radical innovations. Discussion and conclusions with managerial implications, limitations of the study, and suggestions for future research close the paper.

INTERNATIONALIZATION OF INNOVATION ACTIVITIES

Aharoni (2011) notes that international business environment has recently faced relatively vast changes. Among these, R&D and innovation have become globally organized, with many innovations coming from multinational enterprises' subsidiaries located often in developing rather than developed countries (Govindarajan and Ramamurti 2011, Polzyski 2005, Quintas et al. 2008). Gassmann et al. (2010, p. 219) note that firms internationalize their R&D and innovation activities for two main reasons: "to be closer to their markets and lead users and to access the best talents worldwide by increasing their absorptive capacity." Being networked internationally facilitates learning that promotes innovation, and decreases the risks related to uncertainty that causes financial concerns and subsequently limits incentives for innovation (Nambisan 2005).

This also shows in the innovation outcomes. While it has been established that internationalization promotes innovativeness (e.g., Filippetti et al. 2011, Nieto and Rodriguez 2011), it also has been shown that it plays a role in terms of the type of innovation that is generated. Incremental innovation building on existing knowledge (Anderson and Tushman 1986, Darroch and McNaughton 2002) is likely to emerge irrespective of the markets in which the firm operates, but radical innovation may be somewhat different. Radicalness, that is, the degree of newness or novelty of a product or service (e.g., Amara et al. 2008) is not straightforward to define. Novelty can get different meanings and reach quite different levels depending on whether the perspective taken is on the technology or the user of the technology, for example. An innovation can be radical in the eyes of its creator, the firm, country, or to the world (Linton 2009, Li and Vanhaverbeke 2009, Darroch and McNaughton 2002). Nevertheless, issues related to high uncertainty and discontinuities with regard to markets and technology (Garcia and Calantone 2002), new market creation, cannibalization of current products and services, and the effects on a company's knowledge base are typically of concern (Hurmelinna-Laukkanen et al., 2008). Indeed, while the generation of incremental innovations can be explained in terms of responses to markets, dominant design, and other such issues, radical innovations are more likely explained in terms of chance or random scientific discoveries (Godoe 2000). In international markets, the firm gets in touch with more external sources of knowledge (Huston and Sakkab 2006), which means that there is higher likelihood of the new creations being notably different from earlier innovations (Frenz et al. 2005, Gassmann et al. 2010).

However, internationalization, and the related increase in connections to other actors, also means that the risk of unintended and unwanted knowledge leakages increases (Martin and Salomon 2003). Prior studies have suggested that using distinctive intangible knowledge-based assets is required for successful international activities (Dunning 1993, Martin and Salomon 2003, Zahra and George 2002). For preserving this uniqueness, firms need to pay attention to protection and appropriation issues. Different protection/appropriability mechanisms can be combined into an appropriability regime of a firm, that is, a structure that both allows deterring harmful imitation and improves the possibility to profit from innovations (Hurmelinna-Laukkanen et al. 2008). Intellectual property rights (IPRs) such as patents, copyrights and trademarks form the category of formal, institutional mechanisms together with contracts and employment legislation (Hurmelinna-Laukkanen et al. 2012). Informal mechanisms include e.g. tacitness of knowledge, practical/technical concealment and secrecy, lead time and human resource management (HRM) pursuing to prevent both knowledge leaving and leaking (Olander et al. 2011). The difference between the categories is that formal mechanisms build on institutionally established possibilities to enforce the rights, e.g., in courts (Neuhäusler, 2012). In international operating environment, it is likely that both types of mechanisms become relevant, and in fact, it has been shown previously that knowledge and innovation protection matters in relation to internationalization and that strength is needed from protection even more than in domestic markets (e.g., Gassmann and Keupp 2007, Hurmelinna-Laukkanen et al. 2012). Nowadays, the protection/appropriability mechanisms are needed not only to generate monopoly position for the firm through preventing copying, but also to enable knowledge exchange and transfer across borders through (cross-)licensing and other such mechanisms.

DIMENSIONS OF RADICAL INNOVATION IN DOMESTIC AND INTERNATIONAL MARKETS

Radical innovation is usually treated as a counterpart to incremental innovation, and different dimensions of radical innovations are addressed much less often. Regarding different dimensions of radicalness, technological *radicalness* is easiest to capture and define (see, e.g., Garcia and Calantone 2002, Therrien et al. 2011, Zhou et al. 2005). Such innovation exhibits a clear development in the state-of-the-art technology (Chandy and Tellis 2000), even to the extent of making prior technologies obsolete (Anderson and Tushman 1990). The benefits of the new technological innovation may come in the form of better functionality or performance. In international markets, technological radicalness is promoted by increased access to other technologies and learning opportunities (Frenz et al. 2005, Criscuolo et al 2010). Combining ideas and technologies in unique ways promotes such innovations that would not otherwise emerge.

Innovation may also be radical from the point-of-view of existing markets and customers (e.g., Garcia and Calantone 2002, Zhou et al. 2005). Innovations with high market uncertainty – i.e., high *market radicalness* provide new types of benefits and are typically designed for emerging or new customers and markets. Also, it is possible that the markets as such stay the same, but the benefits are radically different from previous ones, affecting the behavior of customers to a notable extent thus increasing market uncertainty (Benner and Tushman 2003, Zhou et al. 2005). Indeed, innovation can be perceived to be radical to different extents depending on how customers evaluate the innovation attributes, what kind of risk is associated to adopting the new innovation, and how much changes are needed in terms of using the innovative creation (Danneels and Kleinschmidt, 2001). In international markets, market radicalness could be seen to easily reach higher levels than in domestic markets as market knowledge may be lacking. In particular, the internationalized innovator needs to consider varying cultural and other such differences in addition to customer preferences in relatively well know domestic markets. This may produce surprising results, especially considering that the process is typically facilitated by learning from local markets (Pla-Barber and Alegre 2007).

In addition to technology and market dimensions, innovation radicalness may also be examined from the viewpoint of the firm's existing business practices (see Green et al. 1995, Linton 2009). It has been shown that it is difficult to appropriate value from new technology and innovations without adequate changes in the business model (Kodama, 2004; Björkdahl 2009). Thus, depending on the competitive landscape, new innovations may require or enable the firm to develop a radically new business model, suggesting a third dimension – *business model radicalness*. Business model construct, in general, can be defined as the design or architecture of firm's value creation, delivery, and capture mechanisms within its networks (Teece 2010). We suggest that business model itself may be the focus of innovation, and in these cases business model innovation itself may become a vehicle for corporate transformation and renewal (see e.g. Zott et al. 2011, Pynnönen et al. 2012). However, achieving business model innovations is challenging, as organizations may contain barriers in the form of configurations of assets and processes or the lack of capability of managers to fully realize the potential of a new business model (Chesbrough 2010). International context may provide opportunities and incentives for radical business model experimentation: new operating models may be piloted in markets that are geographically distant from the firm's main markets to reduce the risk. Secondly, international context as such may require changes in the value architecture and operating model as the firm develops from a domestic to an international player.

Summarizing the above discussion, it seems that internationalization and radicalness of innovation are linked to each other in each three dimensions of radicalness. Consequently, the following hypothesis is presented:

H1: Internationalized firms reach higher levels of innovation radicalness than domestic firms.

PROTECTION MECHANISMS FOR PRESERVING UNIQUENESS IN INTERNATIONAL ENVIRONMENT

As discussed earlier, the appropriability regime of the firm can be defined as a structure that both allows deterring harmful imitation and improves the possibility to profit from innovations. In fact, prior studies have suggested that the strength of the appropriability regime is positively related to the innovativeness of firms (Cohen 1995, Jantunen and Hurmelinna-Laukkanen 2005, Teece 1986). Surely, the framework itself

does not tell much about the final outcomes, as also appropriability strategies that determine how the mechanisms are used or if they are used at all may play a role - consider, e.g., appropriability strategies that build more on ownership of complementary assets than on strong appropriability (see, e.g., Milesi et al. 2013, Pisano 2006). Nevertheless, the appropriability regime and its strength provide the starting point for different strategic moves, and therefore, it is an important factor considering innovativeness. In particular, the strength of the appropriability regime both provides the possibilities to transfer and exchange knowledge safely, thereby directly contributing to innovation, and it also has incentive effects when the companies expect to profit from their innovation activities. This could be reflected to the firms' international activities and internationalization motivations as well.

Knowledge Protection/Appropriation and Internationalization

While examining appropriability regime as a whole is surely important, it also is relevant to acknowledge which specific mechanisms are most suitable in different situations. In particular, international settings can represent a challenge or an opportunity, depending on the individual mechanism that is under observation (e.g., Hurmelinna-Laukkanen et al. 2012, Martin and Salomon 2004, Polczynski 2005).

When discussing the relevant appropriability mechanisms in international settings, IPRs emerge frequently. For example, Sanyal (2004) notes that the scope of patent law is a key factor in multinational firm's decisions with regard R&D investments, but it is not always straightforward in which direction it takes the firm (see also Kumar 1996). Weak protection possibilities might limit the willingness to locate in a country, but on the other hand, the possibilities to utilize the resulting spillovers also are relevant (Kafourous et al. 2012). With regard IPRs, it has also been noticed that patent and other such decisions become much more complicated when multiple countries and jurisdictions are considered. It needs to be considered how the legal environment affects dependability and usability of protection, whether the cultural environment and attitudes towards protection of intellectual property is favorable, and if business environment exhibits a strong market for intellectual property and innovations. (Polczynski 2005). Nevertheless, IPRs are recognized as important tools in the international markets for innovation, especially considering that they are not only providing firms with temporary monopoly benefits, but also allow safer knowledge transfer and exchange, and enable avoiding harmful effects of infringement claims, litigations and the related limitations to freedom of operation (e.g., Atkins 1998, Cohen et al. 2002, Guellec et al. 2012, Megantz 2002). For example Hurmelinna-Laukkanen et al. (2012) found that IPRs are among the most decisive appropriability mechanisms in relation to internationalization likelihood. Contracting is also likely to be of relevance (Contractor 1981, Contractor and Ra 2002, Narula and Hagedoorn 1999), as it complements IPRs in many cases (for example, by blocking the potential holes in the IPR protection) or creates exclusive arrangements that are similar to the protection provided by IPRs. Also, contracting comes quite naturally as practically any form of entry and any type of business is typically conducted through legally binding contracts. However, there are also challenges in international markets as complexity arises, similarly to IPRs. Employment legislation can also be utilized to improve inimitability, but as an appropriability mechanism, it may be quite limited in terms of gaining other benefit than avoiding imitation, and it also suffers from the uncertainty related to legal differences in varying countries (Hurmelinna-Laukkanen et al. 2012).

Informal forms of protection and appropriability are could be as pronounced or even more relevant as the problems with legal environment and other such issues which require formal mechanisms. In fact, the international operations environment could strengthen many of these mechanisms, especially bearing in mind that informal mechanisms are often related to controlling knowledge flows for knowledge protection. Knowledge spillovers have been noticed to be geographically localized (e.g. Almeida and Kogut 1999, Jaffe et al. 1993), which means that the informal mechanisms can become quite relevant in relation to internationalization. For example, Almeida and Kogut (1993) have noticed that the flow of knowledge within a region depends on mobility of engineers. This means, that in order to preserve the core intellectual assets, attention needs to be paid to HRM as an appropriability mechanism (Olander et al. 2011). The challenge surely is that dealing with HRM issues across multiple cultures and nations is not straightforward (Briscoe 1995, Monks et al. 2001). Tacitness, lead time, and secrecy, if they are relied on as appropriability mechanisms, are inherently strengthened by international operations environment: cultural and language issues easily form additional barriers to transfer of knowledge and make it harder to overcome any causal ambiguities related to the innovation. This increases their value as protection mechanisms. Indeed, it has already been established in prior studies that strong lead time and tacitness are related to the likelihood of the firm to become internationalized (Hurmelinna-Laukkanen et al. 2012).

Based on the above discussion, it can be expected that internationalization and strength of protection/appropriability mechanisms are related to each other. In line with this, we hypothesize the following:

H2: Internationalized firms reach higher strength of appropriability mechanisms than domestic firms.

Knowledge Protection/Appropriation for Radical Innovation

Hurmelinna-Laukkanen et al. (2012) found in their study that different appropriability mechanisms relate differently to the tendency of firms to internationalize, to different entry modes, and to international performance. In this paper we examine a similar set of protection/appropriability mechanisms, but instead of considering different aspects of internationalization, we focus on different dimensions of radical innovations in domestic versus international markets. We expect that like in relation to internationalization, there are differences with regard to how individual protection mechanisms relate to radical innovation dimensions in domestic and international settings.

Prior research suggests that radical innovation may be easier to protect than incremental innovation and that the gained protection is typically stronger (Levin et al. 1987, Hurmelinna-Laukkanen et al. 2008): when the creation to be protected is notably different from earlier ones, lead time, secrecy, or tacitness, for instance, can become effective forms of protection since it takes more time for others to overcome causal ambiguities related to the innovation. Likewise, it is easier to meet the novelty requirements for gaining IPR protection, and in case of infringement claims, show how the innovation deviates from others (Levin et al. 1987, Hall 2005). Subsequently, following the earlier logic of innovation being facilitated and incentivized by strong appropriability, a positive connection can be found between the strength of knowledge protection and radicalness. This should show both in domestic and international markets.

However, as discussed above, there are different dimensions of innovation radicalness, and internationalization may both pose challenges and provide additional benefits with regard to innovation protection. This may have an effect on the found relationships. For instance, while IPRs are likely to be highly relevant with respect to technological radicalness (considering patent protection, for example), and they also may show significance with regard to market radicalness through trademark and trade name protection, they may not be as easily usable for covering new, radical business models. Lead time or tacitness might be much less 'selective' in the sense that they could be easily linked to different types of innovations both in domestic and international markets. Secrecy might pose some challenges, e.g., in relation to market or business-model dimensions of radical innovations of internationalized firms as not distributing enough information on these aspects might discourage their implementation in practice (see, e.g. Hannah 2005). Considering applying it in home markets where the risk of misunderstandings regarding the role of secrecy may be smaller it may be more useful – like in relation to technologically radical innovation, where secrecy may not be such an issue since not everyone in the firm needs (or even wants) to know about the technical specificities.

In line with the discussion thus far, the following hypothesis are put forward for closer examination of the interplay of internationalization, the dimensions of radical innovation, and different appropriability mechanisms:

H3: Both internationalized and domestic focused firms reach higher levels of innovation radicalness when the appropriability mechanisms are stronger.

EMPIRICAL STUDY

Data collection

The data for this study is acquired from a structured web-based survey, which was conducted in Finnish markets during 2008 and 2009. The sample involved firms operating in many types of industries, the inclusion criteria being having at least 100 employees, and an independent R&D/Innovation strategy. Initially, Finnish firms with at least 100 employees at the end of 2007 were included in the search, comprising a total of 1764 firms taken from the publicly available Amadeus database. After this screening process, 762 firms were qualified (a large part of the firms were disqualified at this point because they were

sub-branches or alternative brand names for the primary firms). Of these firms, 570 were reached after several contact attempts, and 455 of those were willing to participate, while 115 refused on the phone or after receiving the questionnaire. Finally, 213 responses were received, resulting in a response rate of 37.4 per cent. Four of the responses were subsequently dropped since these firms did not meet the 100 employee minimum criteria. In order to assess the possibility of non-response bias (e.g., Armstrong & Overton, 1977), an ANOVA (analysis of variance) test was conducted with several key variables of the survey to compare early and late respondents. The results of the test suggested that non-response bias is not a concern here.

Measures

Internationalization tendency was measured with a dummy variable, indicating whether or not the respondent firm was involved in internationalization activities. The question was formulated as “Does your company have international activities (e.g., sales, R&D and/or production abroad? “, and the respondent had to choose between “yes” (coded as 1) or “no” (coded as 0) alternatives.

In order to measure the strength of each firms’ *appropriability regime*, the survey included a broad range of knowledge protection and appropriability mechanisms – following the examples of the Yale (Levin et al., 1987) and Carnegie Mellon (Cohen et al., 2000) surveys, as well as more recent augmentations (e.g., Hurmelinna-Laukkanen and Puumalainen, 2007). In examining these mechanisms, we conducted a principal component analysis with Varimax rotation on the dataset. The items loaded on seven theoretically consistent factors, each representing different appropriability mechanisms (see Appendix 1). The Cronbach’s alpha (see, e.g., Nunnally, 1978) was above the level of 0.70 for each factor. In order to measure the strength of the overall appropriability regime of a firm, we then aggregated the mean scores of the seven factors into a single score for the measure. In addition, to enable additional analysis that distinguishes formal and informal appropriability mechanisms, two separate measures were calculated. The measure for formal mechanisms includes three factors: IPRs, contracts and labour legislation. The informal mechanisms include the remaining four factors: human resource management, secrecy, lead time, as well as tacitness of knowledge. Both sets of measures are also calculated as overall mean scores for the underlying factor means.

The three dimensions of innovation radicalness were measured with self-developed multi-item constructs. Respondents were asked to reflect the firm’s latest significant product or service launch while responding. We consider radicalness to be a continuous variable that is firm-specific and subjective by nature. The respondents in the firms were asked to make subjective interpretations regarding the degree of newness of innovations related to the company’s technological knowledge base, market offerings, and ways of operating. The goal was to capture *technological radicalness* on items related to technological difference, knowledge, and performance, with regard to competitors. The items related to this dimension were the following: “The performance of our product/service is technologically higher than that of other options in the market”, “we have more technological knowledge than our competitors” and “compared to our competitors, our product/service is based on a remarkably different technological solution. *Market radicalness* covered issues such as required amount of learning from customers, and the understandability of benefits of the developed concept. It was measured with three items, namely “Customers realize the benefits of the new product/service only over a longer period”, “ordinary customers may find it hard to understand all the features of the product or service” and “to use the product the customer needs to learn something new”. *Business model radicalness* was measured with respect to potential significant changes in production processes and company practices in general. Principal component analysis with Varimax rotation was applied in measure development. Three of the eleven original items were left out from the final constructs because of low factor loadings. The remaining eight items loaded onto three components, accounting for 69.5 percent of the variance. Based on this, composite measures for each dimension were computed. Considering the exploratory nature of the composite measures, the Cronbach’s alphas could be considered acceptable for newly developed scales. The measures and reliabilities for both appropriability mechanisms and innovation radicalness are listed in Appendix 1.

Results

We first compared the innovation radicalness measures (see Table 1), as well as strength of appropriability mechanisms (see Table 2) in domestically and internationally oriented firms with a series of independent samples’ t-tests.

Table 1. Internationalization and innovation radicalness

		Technological radicalness	Market radicalness	Business model radicalness
Domestic focused firms	Mean	3.54	4.46	3.43
	N	52	52	52
	Std. Deviation	1.35	1.41	1.40
Internationalized firms	Mean	4.62	4.40	3.79
	N	145	145	144
	Std. Deviation	1.41	1.55	1.49
	Mean difference	1.07	-.06	.36
	Sig. (2-tailed)	.00	.79	.14

With respect to innovation radicalness, there are notable differences between internationalized and domestic focused firms only with respect technological radicalness, with internationalized firms showing higher values. Market and business model radicalness do not show statistically significant differences (although business model radicalness is higher in internationalized firms, and comes close to being significant at 10 percent level).

Table 2. Internationalization and appropriability mechanisms

		IPRs	Contracts	Empl. Legislatio n	HRM	Secrecy	Lead time	Tacitness
Dom. firms	Mean	2.05	4.40	2.87	4.49	3.70	4.70	3.23
	N	49	49	49	48	49	49	49
	Std. Deviation	1.25	1.59	1.37	1.63	1.64	1.37	1.15
Int. firms	Mean	3.40	4.83	3.22	4.63	4.28	4.96	3.76
	N	134	137	133	139	132	136	139
	Std. Deviation	1.59	1.49	1.58	1.39	1.63	1.20	1.47
	Mean difference	1.35	.43	.35	.14	.58	.25	.53
	Sig. (2-tailed)	.000	.084	.175	.576	.036	.225	.012

In terms of Table 2, taking a look at the mean values of appropriability strength, internationalized companies are shown to exhibit higher values throughout the appropriability mechanisms. IPRs, secrecy and tacitness reach statistical significance, and also contracts are marginally significant. Other forms of protection also show higher means for internationalized firms even if they are not statistically significant.

We then moved on to examining the fit between type of radicalness and protection in domestic and internationalized firms, where equally divided sub-groups of high and low protection in terms of different appropriability mechanisms were compared with t-tests. Table 3 below summarizes the significant findings in terms of different types of radicalness for domestic-focused and internationalized firms (See tables A and B in the Appendix 2 for more detailed statistical information).

Table 3. Appropriability mechanisms that promote types of radicalness for domestic-focused and internationalized firms (based on Independent Samples T-tests)

	IPR	Contracts	Employment legislation	HRM	Secrecy	Lead time	Tacitness
Dom. firms	MarketRad	-	-	TechRad	TechRad	TechRad	TechRad
	-	-	-	(MarketRad)	MarketRad	MarketRad	BusModRad
	-	-	-	-	BusModRad	BusModRad	-
Int. firms	TechRad	TechRad	-	TechRad	TechRad	TechRad	MarketRad
	-	BusModRad	-	MarketRad	-	BusModRad	BusModRad
	-	-	-	-	-	-	-

Intellectual property rights seem to be more relevant for technological radicalness in international markets, whereas in domestic markets, they are associated with market radicalness. Contracts may not play a relevant role for innovation radicalness in domestic markets, but in international environment strength of protection is related to both technological and business-model dimensions of radical innovations. Employment legislation and HRM are quite similar for both domestic and internationalized firms, and also lead time varies only with respect to market radicalness – the connection between protection and innovation being more visible in domestic markets. Secrecy seems to play a role in both markets with respect to technological radicalness, but it also is related to business and market radicalness in domestic markets. Tacitness also shows in both domestically and internationally oriented firms when business radicalness is of concern, but differences emerge also as tacitness is associated to technological radicalness in domestic firms and market radicalness in internationalized firms.

DISCUSSION AND CONCLUSIONS

During recent years, innovation and internationalization have been noticed to be tightly connected (e.g. Dunning 1993, Kafouros et al. 2012). Depending on a variety of factors, their interaction easily causes positive or negative cycles with unique intellectual assets promoting internationalization, and internationalization enhancing innovation, or problems in either area diminishing the chances to succeed in the other. This setting warrants more research, and in this study, the focus was turned to protection of different dimensions of innovation radicalness in international and domestic markets.

In order to grasp the most relevant connections, we examined first the relationship between *internationalization and dimensions of innovation radicalness*. Our findings indicate that in international markets, access to different types of knowledge and varying technologies enhances the chances that *radically new technologies* emerge (see Kafouros et al. 2012). Regarding *market radicalness*, internationalization does not seem to play a role, since this dimension is almost unchanged independent of domestic or international focus. In terms of *business model radicalness*, the internationalized firms seem to exhibit higher rates of newness (although this connection only close to being statistically significant). This result suggests that internationalized firms approach the business models differently or that international markets are utilized for trials and new operation modes, which increase the radicalness of business models for such firms. Overall, in the light of these findings, our hypothesis H1 is partially supported, as only one dimension of radicalness clearly shows higher levels in internationalized firms compared to domestic ones.

Second, we considered the linkages between *internationalization and protection/appropriability mechanisms*. We found that four out of seven mechanisms were clearly stronger in internationalized firms. This provides relatively strong support for the hypothesis H2. *IPRs* are highly important in international markets as they not only create obstacles to unwanted imitation, but also facilitate freedom of operation (through mitigating the risk of infringement claims and litigation) and enable safe knowledge transfer and exchange (Cohen 1995, Hurmelinna-Laukkanen and Puumalainen 2007). Likewise, *secrecy* is needed to preserve the competitive edge, and also, it can be stronger (and therefore more useful) in international markets due to cultural and language barriers, for example (Mäkelä et al. 2007). *Tacitness* is similar to secrecy in prevention of imitation and additional strength provided by international environment. *Contracts* are also more relevant in knowledge protection in internationalized markets. Especially, the challenges related to the complexity with regard the differences in legal, cultural, and business environments create uncertainty in terms of efficiency of protection (Polzynski 2005). Contracting can make up for some of the deficiencies of other forms of formal protection, and, in the best cases, improve the possibilities that the contracting parties are more willing to monitor and defend the rights of the firm for the common benefit. Other forms of protection are not statistically significant with respect to differences in domestic and internationalized firms. It may be that the complexity related to international operations environment comes into play, lowering slightly the *strength of employment legislation, HRM, and lead time*. This issue calls for future examination, however.

Finally, we combined all of the central factors of interest. Following our expectations, our study illustrates notable differences between internationalized and domestic firms in terms of the combinations of different types of radical innovations and the strength of protection. In general, it seems that in domestic markets, the informal mechanisms dominate the appropriability regime over formal ones, while in international markets there is a wider variety with respect to all different dimensions of radical innovations. There are differences regarding the strength of different mechanisms and dimensions of radical innovations in different markets, however.

As suggested above, *IPRs* may be more relevant for innovations containing high technological or market radicalness. Differences seem to emerge with respect to the firm orientation towards domestic or international markets, however: *IPRs* are associated with market radicalness in domestic markets and with technological radicalness in internationalized firms. Indeed, technological radicalness may be promoted in international markets when the firm can protect its existing technologies and transfer them more safely (see, e.g., Criscuolo et al 2010, Hurmelinna-Laukkanen et al. 2012), and technologically radical innovations may be easier, and important, to cover with *IPRs*. Regarding market radicalness, operating in domestic markets seems to be particularly prone to show connection to *IPRs* protection. It may be that in domestic markets, there are needs to differentiate the firm with respect to the competitors, and with the familiarity with the local *IPR* system, the protection mechanisms can be utilized in relation to innovation with high market radicalness. In international settings characterized by different legal systems, it may be harder to find the proper ways to cover these types of innovations. Surely, the differences may also indicate that the mechanisms are linked to each other within the appropriability regime: for example, it was shown that in international markets, *IPRs* and contracts may replace secrecy to an extent (see, e.g., Arundel 2001). Therefore, it pays off to have variety in the appropriability regime, as this enables strategic moves in different geographic areas and with respect to different types of innovations, for example.

The importance of *contracts* in international setting (see Narula and Hagedoorn 1999) is confirmed as technological and business model radical innovations are associated with stronger contractual protection. The need for contractual protection to these dimensions of radicalness is quite understandable, since contractual protection is mostly needed when new technologies are developed with other organizations, and when business models incorporate new ways of distribution, for example. The need to build protection against customers' actions emerges rarely. Considering *employment legislation*, no statistical differences between domestic and international firms were found. As discussed above, this form of protection may be a double-edged sword, with complexity and uncertainty limiting its effects in international markets, and limited understanding of this mechanism as a relevant form of protection in domestic firms (see, e.g., Autio et al. 2000). On the other hand, *HRM practices* seem to be quite relevant for both domestically and internationally operating firms, especially with regard to technology and market radicalness. Paying attention to knowledge leaving and leaking (Olander et al. 2011) enhances the possibilities not to lose such knowledge in collaboration to the other parties that form the most distinctive advantage for the firm. After all, the contact persons in collaboration for technology exchange or market development are important gatekeepers and receptors of the knowledge (Baughn et al 1997). *Secrecy* and *lead time* behave in quite a similar manner in domestic markets, both of them promoting all dimensions of innovation radicalness.

Somewhat surprisingly, the connection between the strength of these mechanisms and radicalness of innovations disappears to an extent in international markets. Stronger secrecy is associated only with higher technology radicalness, whereas lead time relates to technology and business model radicalness. It may be, as suggested above, that in domestic markets it is easier to get the message of secrecy through without facing the adverse effects of organizations and individuals feeling themselves not trusted (Hannah 2005). In international markets, small nuances go unnoticed and misinterpretations are more typical (Mäkelä et al. 2007). Surely, it may be that while it is considered that the technological developments need to be kept secret also in international markets, the business model or market-related innovations are rather covered with *IPRs* and contracts requiring knowledge codification and 'publication', in which case secrecy cannot be utilized to a notable extent. Finally, *tacitness* also plays slightly different roles when comparing internationally and domestically operating firms, and with respect to different dimensions of innovation radicalness. While tacitness is associated with high business model radicalness in both domestic and international contexts, tacitness is further associated with technological radicalness in domestic markets and with market radicalness in international markets. This suggests that tacitness may be quite effective in protecting business model innovation compared to other mechanisms. Indeed, when an innovative business model is based on the complex social phenomenon and tacit knowledge within the firm, it is likely to be quite difficult to imitate.

It can be concluded that international markets, being innovative and having intellectual assets at the firm's disposal is a starting point for competitive advantage, but it may not be enough in a highly competitive environment. In addition, efforts have to be directed to preserving the distinctive intellectual assets and innovations. While these aspects have been recognized in previous studies (e.g., Autio et al. 2000, Frenz et al. 2005, Gassmann et al. 2010), our contribution lays in combining them into one study, and in a more detailed examination of relationships between different dimensions of radical innovations and varying protection/appropriability mechanisms in international and domestic markets.

The managerial implications of the study point to two issues: first, as it seems that different appropriability mechanisms are related to different dimensions of innovation radicalness especially with regard to operating in domestic or international markets, appropriability should be sought from multiple mechanisms. It is easier to execute or put aside existing protection according to the changes in company needs than to build protection from nothing while trying to internationalize or benefit from differently radical innovations at the same time. Resources might not suffice for such a task. Second, and related to this, it is important to get employees from different functions of the firm involved in knowledge protection for radical innovations. As radicalness comes in different forms, they may emerge in different parts of the firm, meaning also that benefits might be lost if personnel have no idea on the protection issues. In general, if a firm seeks radical innovations, access to multiple sources of knowledge from various markets seems to be an essential precondition.

There are limitations in this study that can be referred to when considering future research arenas. For example, we have delimited our study in that we have taken no definite position with regard causality issues, and we have not considered the international markets in terms of host country features, for example. Such issues could be considered in future studies. Furthermore, while we have tried to provide an overview of the above described connections, more detailed discussion on the reasons and contingencies related to the found linkages is still needed. For example, business model innovation and radicalness is still a relatively new area of research, and therefore calls for more examination.

APPENDIX 1

Appropriability mechanisms

During the last three years, how well have the following mechanisms protected your innovations (products, services, processes) from competitors' imitation? (1 = not applicable to our innovations, 2 = poorly, 7 = very well)

IPRs (reliability = .71)

- Patents
- Copyright
- Trademark

Contracts (reliability = .75)

- Long-term collaboration contracts
- Non-disclosure/confidentiality agreements

Labour legislation (reliability = .79)

- Inter-firm contracts on not recruiting personnel from each other
- Employees' non-competition agreements
- The legal loyalty obligation of employees

Human resource management (reliability = .76)

- Making personnel committed to the firm (e.g. by offering perks)
- Small personnel turnover/minimizing it

Secrecy (reliability = .72)

- Using passwords
- Restricting access to meetings and the firm's premises

Lead time (reliability = .80)

- Getting to the markets first with a new product or service
- Continuous improvements in products/services/processes
- Keeping ahead of competitors

Tacitness and complexity of knowledge (reliability = .89)

- Complexity of the product/service/process
- The fact that it's very hard to teach knowledge related to the product/service/process
- The fact that it's very hard to understand the features of the product/service/process by observing/examining it
- The fact that knowledge related to the product/service/process may not be usable in other environments
- The fact that it's not possible to document knowledge related to the product/service/process
- The fact that core knowledge related to the product/service/process is embedded in routines

Innovation radicalness

When considering the following statements, please reflect on your company's latest significant product/service launch. (1 = totally disagree, 7 = totally agree)

Technology radicalness (reliability = 0.83)

- The performance of our product/service is technologically higher than that of other options in the market
- We have more technological knowledge than our competitors
- Compared to our competitors, our product/service is based on a remarkably different technological solution

Market radicalness (reliability = 0.61)

- Customers realize the benefits of the new product/service only over a longer period
 - Ordinary customers may find it hard to understand all the features of the product or service To use the product the customer needs to learn something new
- Business model radicalness* (reliability = 0.61)
- Introducing the product/service into our selection has clearly changed the practices of the entire company
Introducing the product/service has meant significant changes in our production process

APPENDIX 2

Results of empirical examination on strength of appropriability mechanisms of different types of innovations in domestic and internationalized firms

Table A. Appropriability mechanisms and innovation radicalness – domestic focused firms

IPRs		Technological radicalness	Market radicalness	Business model radicalness
Low IPR protection	Mean	3.58	4.21	3.42
	N	38	38	38
	Std. Deviation	1.36	1.43	1.38
High IPR protection	Mean	3.76	5.05	3.73
	N	11	11	11
	Std. Deviation	1.28	1.19	1.47
Mean difference		.18	.84	.31
Sig. (2-tailed)		.700	.084	.527
Contracts		Technological radicalness	Market radicalness	Business model radicalness
Low contract-based protection	Mean	3.73	4.37	3.51
	N	34	34	34
	Std. Deviation	1.38	1.41	1.32
High contract-based protection	Mean	3.38	4.73	3.43
	N	15	15	15
	Std. Deviation	1.24	1.24	1.59
Mean difference		-.36	.37	-.08
Sig. (2-tailed)		.406	.389	.853
Employment legislation		Technological radicalness	Market radicalness	Business model radicalness
Low employment legislation-based protection	Mean	3.62	4.21	3.36
	N	28	28	28
	Std. Deviation	1.41	1.41	1.12
High employment legislation-based protection	Mean	3.62	4.64	3.67
	N	21	21	21
	Std. Deviation	1.25	1.41	1.71
Mean difference		.00	.43	.31
Sig. (2-tailed)		1.000	.297	.475
Human resource management		Technological radicalness	Market radicalness	Business model radicalness
Low HRM protection	Mean	2.95	4.05	3.30
	N	22	22	22
	Std. Deviation	1.29	1.49	1.15
High HRM protection	Mean	4.03	4.73	3.44
	N	26	26	26
	Std. Deviation	1.24	1.33	1.56
Mean difference		1.07	.69	.17
Sig. (2-tailed)		.005	.099	.717
Secrecy		Technological radicalness	Market radicalness	Business model radicalness
Low secrecy-based protection	Mean	3.27	4.13	3.10
	N	30	30	30
	Std. Deviation	1.32	1.62	1.18
High secrecy-based protection	Mean	3.96	4.84	3.94
	N	19	19	19
	Std. Deviation	1.31	.88	1.62
Mean difference		.69	.71	.84
Sig. (2-tailed)		.077	.054	.040
Lead time		Technological radicalness	Market radicalness	Business model radicalness

		Technological radicalness	Market radicalness	Business model radicalness
Low lead time –based protection	Mean	3.14	4.06	3.02
	N	31	31	31
	Std. Deviation	1.21	1.44	1.21
High lead time –based protection	Mean	4.22	5.00	4.14
	N	18	18	18
	Std. Deviation	1.33	1.20	1.48
Mean difference		1.08	.94	1.12
Sig. (2-tailed)		.005	.024	.006
Knowledge tacitness				
		Technological radicalness	Market radicalness	Business model radicalness
Low knowledge tacitness –based protection	Mean	3.18	4.26	3.06
	N	31	31	31
	Std. Deviation	1.24	1.59	1.23
High knowledge tacitness –based protection	Mean	4.15	4.67	4.06
	N	18	18	18
	Std. Deviation	1.34	1.04	1.52
Mean difference		.97	.41	.99
Sig. (2-tailed)		.014	.284	.016

Table B. Appropriability mechanisms and innovation radicalness – internationalized firms

IPRs				
		Technological radicalness	Market radicalness	Business model radicalness
Low IPR protection	Mean	4.33	4.36	3.61
	N	55	55	54
	Std. Deviation	1.37	1.69	1.53
High IPR protection	Mean	4.87	4.36	3.97
	N	77	77	77
	Std. Deviation	1.63	1.42	1.50
Mean difference		.54	.00	.36
Sig. (2-tailed)		.026	1.00	.179
Contracts				
		Technological radicalness	Market radicalness	Business model radicalness
Low contract-based protection	Mean	4.40	4.38	3.51
	N	67	67	66
	Std. Deviation	1.35	1.60	1.44
High contract-based protection	Mean	4.87	4.36	4.10
	N	68	68	68
	Std. Deviation	1.42	1.53	1.56
Mean difference		.46	.58	-.02
Sig. (2-tailed)		.053	.027	.940
Employment legislation				
		Technological radicalness	Market radicalness	Business model radicalness
Low employment legislation-based protection	Mean	4.45	4.33	3.57
	N	60	60	59
	Std. Deviation	1.54	1.62	1.50
High employment legislation-based protection	Mean	4.81	4.47	3.99
	N	72	72	72
	Std. Deviation	1.27	1.50	1.52
Mean difference		.36	.43	.14
Sig. (2-tailed)		.156	.111	.610
Human resource management				
		Technological radicalness	Market radicalness	Business model radicalness
Low HRM protection	Mean	4.30	4.11	3.68
	N	66	66	66
	Std. Deviation	1.47	1.37	1.45
High HRM protection	Mean	4.94	4.63	3.89
	N	72	72	71
	Std. Deviation	1.25	1.66	1.58
Mean difference		.64	.52	.21
Sig. (2-tailed)		.006	.047	.430
Secrecy				
		Technological radicalness	Market radicalness	Business model radicalness
Low secrecy-based	Mean	4.35	4.34	3.59

protection	N	60	60	59
	Std. Deviation	1.50	1.55	1.59
High secrecy-based protection	Mean	4.95	4.45	3.99
	N	70	70	70
	Std. Deviation	1.24	1.55	1.47
	Mean difference	.60	.11	.40
	Sig. (2-tailed)	.015	.692	.140
Lead time				
		Technological radicalness	Market radicalness	Business model radicalness
Low lead time –based protection	Mean	4.32	4.29	3.48
	N	64	64	64
	Std. Deviation	1.39	1.65	1.37
High lead time –based protection	Mean	4.89	4.43	4.00
	N	70	70	69
	Std. Deviation	1.37	1.47	1.60
	Mean difference	.57	.14	.52
	Sig. (2-tailed)	.019	.606	.048
Knowledge tacitness				
		Technological radicalness	Market radicalness	Business model radicalness
Low knowledge tacitness –based protection	Mean	4.38	3.90	3.27
	N	60	60	59
	Std. Deviation	1.48	1.43	1.43
High knowledge tacitness –based protection	Mean	4.77	4.76	4.18
	N	77	77	77
	Std. Deviation	1.37	1.55	1.47
	Mean difference	.39	.86	.90
	Sig. (2-tailed)	.110	.001	.000

REFERENCES

- Aharoni, Y. (2011). Insights into the future of International Business. *AIB Insights*, 11, 2, 3-7.
- Almeida, P. & Kogut, B. (1999). Localization of knowledge and the mobility of engineers in regional networks, *Management Science*, 45, 7, 905-917.
- Amara, N., Landry, R., Becheikh, N. & Ouimet, M., 2008. Learning and novelty of innovation in established manufacturing SMEs, *Technovation* 28, 450–463.
- Anderson, P. & Tushman, M.L. (1990), Technological discontinuities and dominant de-signs: a cyclical model of technological change, *Administrative Science Quarterly*, 35, 604-633.
- Armstrong, S. J., & Overton, T. S., (1977) Estimating non- response in mailed surveys, *Journal of Marketing Research*, 18, 263 - 264
- Arundel, A. (2001). The relative effectiveness of patents and secrecy for appropriation. *Research Policy*, 30, 4, 611-624
- Atkins, M. H. (1998). The role of appropriability in sustaining competitive advantage—An electronic auction system case study. *Journal of Strategic Information Systems*, 7, 2: 131–52.
- Autio, E., Sapienza, H. & Almeida, J. (2000) Effects of age at entry, knowledge intensity and imitability of international growth, *Academy of Management Journal*, 43, 5, 909 - 924
- Baughn, C.C., Stevens, J.H., Denekamp, J.G. & Osborn, R.N. (1997). Protecting intellectual capital in international alliances, *Journal of World Business*, 32, 2, 103-117.
- Benner, M. & Tushman, M. (2003). Exploitation, exploration, and process management: the productivity dilemma revisited, *Academy of Management Review*, 28, 238–256.
- Björkdahl, J. (2009). Technology cross-fertilization and the business model: The case of integrating ICTs in mechanical engineering products, *Research Policy*, 38, 1468-1477.
- Briscoe, D. (1995). International Human Resource Management, Prentice-Hall, Englewood Cliffs, NJ.
- Cassiman, B. & Golovko, E. (2011). Innovation and internationalization through exports. *Journal of International Business Studies*, 42, 56-75.

- Chandy, R. & Tellis, G., (2000). The incumbent's curse? Incumbency, size, and radical product innovation. *Journal of Marketing*, 64, 1–17.
- Chesbrough, H. (2010). Business model innovation: Opportunities and barriers, *Long Range Planning*, 43, 354–363.
- Cohen, W. (1995). Empirical studies of innovative activity: In: Handbook of the Economics of Innovation and Technology Change, Stoneman, P. (ed.), Wiley-Blackwell, Cambridge and Oxford, 182-264.
- Cohen, W.M., Goto, A., Nagata, A., Nelson, R.R., & Walsh, J.P. (2002). R&D spillovers, patents and the incentives to innovate in Japan and United States, *Research Policy*, 31, 1349-1367.
- Cohen, W.M., Nelson, R.R. & Walsh, J.P. (2000) Protecting their intellectual assets: appropriability conditions and why U.S. manufacturing firms patent (or not), Working Paper 7552, National Bureau of Economic Research, Inc.
- Contractor, F. (1981) *International Technology Licensing: Compensation, Costs and Negotiation*. Lexington Books, Lexington, MA.
- Contractor, F.J. & Ra, W. (2002) How knowledge attributes influence alliance governance choices: A theory development note, *Journal of International Management*, 8, 1, 11–27.
- Criscuolo, C., Haskel, J.E. & Slaughter, M.J. (2010). Global engagement and the innovation activities of firms, *International Journal of Industrial Organization*, 28, 191-202.
- Danneels, E. & Kleinschmidt, E. (2001). Product innovativeness from the firm's perspective: its dimensions and their relation with project selection and performance, *The Journal of Product Innovation Management*, 18, 357-373.
- Darroch, J. & McNaughton, R. (2002). Examining the link between knowledge management practices and types of innovation, *Journal of Intellectual Capital*, 3, 3, 210-222.
- Delerue H. & Lejeune, A. (2011). Managerial secrecy and intellectual asset protection in SMEs: The role of institutional environment, *Journal of International Management*, 17, 2, 130–142.
- Dunning, J.H. (1993). *Multinational Enterprises and the Global Economy*, Reading, MA: Addison-Wesley.
- Feinberg, S.E. & Gupta, A.K. (2004) Knowledge spillovers and the assignment of R&D responsibilities to foreign subsidiaries, *Strategic Management Journal*, 25, 823-845.
- Filippetti, A., Frenz, M. & Ietto-Gillies, G. (2011). Are innovation and internationalization related? An analysis of European countries, *Industry & Innovation*, 18, 5, 437-459.
- Frenz, M., C. Girardone & Ietto-Gillies, G. (2005). Multinationality matters in innovation: The case of the UK financial services. *Industry and Innovation*. 12, 1, 65-92.
- Garcia, R. & Calantone, R. (2002). A critical look at technological innovation typology and innovativeness terminology: a literature review. *The Journal of Product Innovation Management*, 19, 110–132.
- Gassmann, O., Enkel, E. & Chesbrough, H. (2010). The future of open innovation. *R&D Management*, 40, 3, 213-221.
- Gassmann, O. & Keupp, M.M. (2007). The Early and Rapid Internationalization of the Firm, *Journal of World Business*, 42, 3, 350–366.
- Godoe, H. (2000). Innovation regimes, R&D and radical innovations in telecommunications, *Research Policy*, 29, 9, 1033–1046.
- Golovko, E. & Valentini, G. (2011) Exploring the complementarity between innovation and export for SMEs' growth. *Journal of International Business Studies*, 42, 362–380.
- Govindarajan, V. & Ramamurti, R. (2011). Reverse innovation, emerging markets, and global strategy, *Global Strategy Journal*, 1, 3/4, 191-205.
- Green, S.G., Gavin, M.B. & Aiman-Smith, L. (1995). Assessing a multidimensional measure of radical technological innovation, *IEEE Transactions of Engineering Management*, 32, 3, 203–214.
- Guellec, D. Martinez, C. and & Zuniga, P. (2012) Pre-emptive patenting: securing market exclusion and freedom of operation, *Economics of Innovation and New Technology*, 21, 1, 1-29.

- Hall, B.H. (2005). Exploring the patent explosion, *Journal of Technology Transfer*, 30, 1/2, 35–48.
- Hannah, D.R. (2005). Should I keep a secret? The effects of trade secret protection procedures on employees obligations to protect trade secrets, *Organization Science*, 16, 1, 71 – 84.
- Howells, J.R. (1995). Going global: the use of ICT networks in research and development, *Research Policy*, 24, 169-184.
- Hurmelinna-Laukkanen, P. & Puumalainen, K. (2007) Nature and Dynamics of Appropriability – Strategies for Appropriating Returns on Innovation, *R&D Management*, 37, 2, 95 - 112
- Hurmelinna-Laukkanen, P., Puumalainen, K. & Saarenketo, S. (2012). Appropriability Mechanisms in Internationalization – Possibilities to Safeguard Innovations, *International Journal of Business and Globalisation*, 8, 3, 364-387.
- Huston, L. & Sakkab, N. (2006). Inside Procter & Gamble's new model for innovation, *Harvard Business Review*, 84, 3, 58-66.
- Jaffe, A.B., Trajtenberg, M. & Henderson, R. (1993), Geographic localization of knowledge spillovers as evidenced by patent citations. *The Quarterly Journal of Economics*, 108, 3, 577-598.
- Jain, S. (1996). Problems in international protection of intellectual property rights, *Journal of International Marketing*, 4, 1, 9-32.
- Jantunen, A. & Hurmelinna, P. (2006). Entrepreneurial orientation, appropriability regimes and innovation performance, *International Journal of Learning and Intellectual Capital*, 3, 2, 153-166.
- Kafouros, M.I., Buckley, P.J., Sharp, J.A. & Wang, C. (2008) The role of internationalization in explaining innovation performance, *Technovation*, 28, 63-74.
- Kafouros, M.I., Buckley, P.J. & Clegg, J. (2012). The effects of global knowledge reservoirs on the productivity of multinational enterprises: The role of international depth and breadth. *Research Policy*, 41, 848-861.
- Knight, G.A. & Cavusgil, S.T. (2004). Innovation, organizational capabilities, and the born global firm. *Journal of International Business Studies*, 35, 124-141.
- Kodama, F. (2004). Measuring emerging categories of innovation: modularity and business model. *Technological Forecasting and Social Change*, 71, 623–633.
- Kumar, N. (1996). Intellectual property protection, market orientation and location of overseas R&D activities by multinational enterprises, *World Development*, 24, 4, 673 - 688
- Levin, R.C., Klevorick, A.K., Nelson, R.R. & Winter, S.G. (1987). Appropriating the returns from industrial research and development, *Brookings Papers on Economic Activity*, 3, 783–831.
- Li, Y. & Vanhaverbeke, W. (2009). The effects of inter-industry and country difference in supplier relationships on pioneering innovations, *Technovation*, 29, 843–858.
- Linton, J. (2009). De-babelizing the language of innovation. *Technovation*, 29, 729–737.
- Martin, X. & Salomon, R. (2003) Knowledge transfer capacity and its implications for the theory of the multinational corporation, *Journal of International Business Studies*, 34, 356 - 373
- McGaughey, S.L., Liesch, P.W. & Poulson, D. (2000). An unconventional approach to intellectual property protection: the case of an Australian firm transferring shipbuilding technologies to China. *Journal of World Business*, 35, 1, 1–20.
- McGaughey, S.L. (2002). Strategic Interventions in Intellectual Asset Flows, *The Academy of Management Review*, 27, 2, 248-274
- Megantz, R.C. (2002). Technology management, developing and implementing effective licensing programs. John Wiley & Sons, New York
- Milesi, D., Petelski, N. & Verre, V. (2013), Innovation and appropriation mechanisms: Evidence from Argentine microdata, *Technovation*, 33, 2-3, 78 – 87.

- Monks, K., Scullion, H. & Creaner, J. (2001). HRM in international firms: Evidence from Ireland, *Personnel Review*, 30, 5, 536 - 553
- Mäkelä, K., Kalla, H. & Piekkari, R. (2007). Interpersonal similarity as a driver of knowledge sharing within multinational corporations, *International Business Review*, 16 (1), 1-22.
- Nambisan, S. (2005) How to prepare tomorrow's technologists for global networks of innovation, *Communications of the ACM*, 48, 5, 29 - 31
- Narula, R. & Hagedoorn, J. (1999). Innovating through strategic alliances: moving towards international partnerships and contractual agreements, *Technovation*, 19, 283-94.
- Neuhäusler, P. (2012). The use of patents and informal appropriation mechanisms – Differences between sectors and among companies, *Technovation*, 32, 681 - 693
- Nieto, M. & Rodríguez, A. (2011) Offshoring of R&D: Looking abroad to improve innovation performance, *Journal of International Business Studies*, 42, 345-361
- Nunnally, J.C. (1978). *Psychometric Theory*. McGraw-Hill: New York.
- Olander, H., Hurmelinna-Laukkanen, P. & Heilmann, P. (2011). Do SMEs benefit from HRM-related knowledge protection in innovation management? *International Journal of Innovation Management*, 15, 3, 593-616.
- Oxley, J. E. & Sampson, R. C. (2004). The scope and governance of international R&D alliances. *Strategic Management Journal* 25, 8/9, 723-749.
- Pisano, G.P. (2006). Profiting from Innovation and the Intellectual Property Revolution. *Research Policy*, 35,8, 1122-1130.
- Pla-Barber, J. & Alegre, J. (2007). Analysing the link between export intensity, innovation and firm size in a science-based industry, *International Business Review*, 16, 3, 275-293
- Polczynski, M.H. (2005). Protecting intellectual property in a global environment, *Intellectual Property Journal*, 18, 83-95.
- Pynnönen, M., Hallikas, J. & Ritala, P. (2012). Managing customer-driven business model innovation. *International Journal of Innovation Management*, 16, 4, 1250022: 1-18.
- Quintás, M.A. Vázquez, X, H., García, J.M. & Caballero, G. (2008). Geographical amplitude in the international generation of technology: Present situation and business determinants, *Research Policy*, 37, 8, 1371-1381.
- Salomon, R.M. & Shaver, J.M. (2005). Learning by exporting: New insights from examining firm innovation. *Journal of Economics & Management Strategy*, 14, 2, 431-460.
- Sanyal, P. (2004). Intellectual property rights protection and location of R&D by multinational enterprises, *Journal of Intellectual Capital*, 5, 1, 59 - 76
- Teece, D.J. (1986). Profiting from technological innovation: Implications for integration, collaboration, licensing and public policy. *Research Policy*, 15, 285-305.
- Teece, D. (2010). Business models, business strategy and innovation, *Long Range Planning*, 43, 172-194.
- Therrien, P., Doloreux, D. & Chamberlin, T. (2011). Innovation novelty and (commercial) performance in the service sector: a Canadian firm-level analysis, *Technovation*, 31, 12, 655-665.
- Zhou, K., Yim, C. & Tse, D. (2005). The effects of strategic orientations on technology and market-based breakthrough innovations. *Journal of Marketing*, 69, 42-60.
- Zott, C., Amit, R. & Massa, L. (2011). The business model: Recent developments and future research, *Journal of Management*, 37, 4, 1019-1042.

ADEQUACY OF INTERNATIONAL FUNDING IN A LESS -DEVELOPED AFRICAN COUNTRY

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ABSTRACT

The main aim of this paper is to determine the adequacy of international funding in a less developing African country towards the Millennium Development Goals. The study analyses and evaluates the adequacy of international funding in Swaziland (a less-developed African economy). The findings show that only 25% of the respondents said that Swaziland is able to work towards achieving the Millennium Development Goals by the year 2015 with international funding while 40% of respondents indicated that the international funding help Swaziland to adequately finance her projects, that is, timely availability of funds and completion of funds. However, the study found that most of the projects financed by international funding in Swaziland are mainly road construction and upgrading urban development projects.

INTRODUCTION

International funding lies in the heart of developing countries financial resources because it helps in meeting the Millennium Development Goals (MDGs), sustainable economic development goals, improving or maintaining its current infrastructure, improving the level of employment, improving the welfare of the country's citizens, and improving the people's standard of living by designing and implementing Poverty Reduction and Growth Facility (PRGF) and Poverty Reduction Strategy Paper (PRSP). International funding, however, for developing countries especially in Africa is largely provided by the giant organisations such as International Monetary Fund (IMF), International Bank for Reconstruction and Development (IBRD), the World Bank, African Development Fund (ADB), Development Bank of South Africa (DBSA).

International funding is one of the essential sources of funding for governments and private sectors in developing countries. Its main purpose is to help developing countries in order to meet their sustainable economic development goals (Seiber, 1982) through the completion of major investment projects. Besides the developing countries, “some of the developed countries” still depend on international funding or external borrowing for their major projects (Adedeji, 1985, p. 53). The usefulness of international funding is determined by comparing the social benefit, or productivity, with the social cost of the transaction. Government accepts external loans in order to promote country's welfare. However, “many African states inherited huge amounts of foreign debt contracted by the colonial administrations, and have never emerged out of their indebtedness” (McMullen, N.J., 1979 cited in Adedeji, 1985, p. 53). With this respect, this study aims to determine the adequacy of international funding in a less developing African country towards the Millennium Development Goals and whether a less developing country can adequately manage its external debts in order to achieve country's sustainable economic development goals.

Considering Swaziland (a less developing African country) economy and social conditions, its economic growth rate is fallen to 2.4% in 2008 from 3.5 percent in 2007 [Central Bank of Swaziland (CBS), 2008/2009], has a budget deficit of 14.3% of GDP (Business Report, 2011; Vollgraaf, 2011), its 60% revenue come from South African Customs Union (SACU) receipts, unemployment rate is 40% (CBS, 2010/2011), more than 69% population live in the poverty (World Bank Development Indicator, 2011), and about 220,000 people are affected with HIV/AIDS [United Nations (UN), 2007:23]. Although there is a call for government to implement corrective measures in addressing these socio-economic challenges, somehow Swaziland facing difficulties by these socio-economic challenges to meet the MDGs by the year 2015.

On the other hand, according to the CBS (2004/2005), “public external debt continues to increase as government undertakes its development projects, which include upgrading of the country's road network and

maintaining its current infrastructure”. In order to keep the public debt at sustainable levels, the development of a proactive financing strategy is of utmost importance. Poor debt management policies can lead to debt crises which can adversely impact on the country's economy which can include being unable to meet its sustainable economic development goals, being unable to improve or maintain its current infrastructure and most importantly not being able to qualify for future loan advancements because of defaulting and being considered as a bad for debt by international lenders.

The study looks at whether the international funding is adequate in terms of helping Swaziland in working towards achieving MDGs. In this regard, this study will find out the criterion used by international financial institutions in selecting the countries to be funded and the adequacy of funding in helping developing countries in meeting their sustainable economic development goals.

The remainder of the paper is organised as follows: the first section provides a brief literature review on the subject matter. The second section describes the research methodology. The third section discusses the results of the analysis. Finally, the last section summarises the findings and provides concluding remarks with some recommendations.

LITERATURE REVIEW

External Debt

The policies of public external borrowing are generally thought to be guided by the simple objectives of the developing country's economic planners, e.g. promoting domestic output growth and increasing welfare of the populace. Further, various governments' objectives can include increasingly national income, improving the employment situation, and adjusting the balance of payments. However, external borrowing derives from the acceptance by a government or a government agency of real or financial resources from an external source with the obligation of repaying such resources in unspecified amount to that source at one or several specified future dates (Seiber, 1982). “External debt problems arise from the inability of a country to increase domestic savings, investment, and export earnings at a time when import bills, amortisation (repayments of the principal), and interest payments are increasing” (Adedeji, 1985, p. 53).

The major channel for external resource transfers to developing countries has been from offices sources, largely bilateral donor governments, international financial institutions such as World Bank, the United Nations Development Program (UNDP), IMF, or regional development banks, increasingly are providing a larger share of official loans. In addition, private commercial banks are taking a greater role in financial intermediation to developing countries (Seiber, 1982).

Developing Countries' Debt Relief and Sustainability

According to IMF (2005), “The IMF continues to work with other official creditors to support low-income countries' efforts to achieve and maintain robust debt sustainability”. The World Bank stated that “the debt burdens of a large number of the poorer countries remain unsustainably high” (The New York Times, 1991). Through the debt relief under the Heavily Indebted Poor Countries (HIPC) initiatives and improved tools for analysing and managing debt, the fund is playing an important role in supporting low-income member countries' efforts to achieve and maintain debt sustainability (IMF, 2005). The World Bank and IMF launched the HIPC initiative in 1996 and 1999 as a comprehensive effort to eliminate poorest and heavily indebted countries' unsustainable debt (IMF, 2005). O'Neill (1990, p. 22) pointed out that “by 1986 it had become clear that the debt problem of sub-Saharan Africa was serious, and more important, the special treatment was required, especially in the form of debt relief and new capital inflows on concessional terms”. With regard to the third-world debt crisis, the Secretary of the United States Treasury, James A. Baker III spelled out the following plan in 1985:

If the debt problem is going to be solved there must be a “Program for Sustained Growth”, incorporating... First and foremost, the adoption by principal debtor countries of comprehensive macroeconomic and structural policies, supported by the international financial institutions, to promote growth and balance of payments adjustment, and to reduce inflation (cited in Serkan and Peter, 2003, p. 16).

However, Adedeji (1985, p. 54) stated that “the African experience has shown that once a country is trapped in this situation, the tendency has been to borrow more in order to refinance maturing debt obligations”. Swaziland as an African county is no exception with that.

METHODOLOGY

The study analyses and evaluates the adequacy of international funding in Swaziland (a less-developed African economy). The adequacy of international funding was measured with the international fundings’ sufficiency in helping Swaziland towards the Millennium Development Goals and the timely availability of funds and completion of projects.

The instruments for collecting data were the questionnaires and documentary evidence (annual reports of Central Bank of Swaziland and other relevant documents). Questionnaires utilized close-ended questions with some of the questions requiring some explanations from the respondents in order to obtain more information on the relevant area and they were combination of a likert scale with five scales in which respondents expressed their opinions, perceptions, and attitudes and some of the questions being of multiple choice nature and lastly a simple category scale. Questionnaires were distributed to the economists and senior officials of the selected population.

The population of the study was made up of the Ministry of Finance Swaziland, Ministry of Economic Planning and Development Swaziland, and the Central Bank of Swaziland. The stated population is selected because the subject is highly technical in the sense that it requires respondents who are well knowledgeable about Swaziland's external funding and the latest developments in developing countries external debts. Researcher then randomly selected 25 respondents from each population. Total 100 respondents were selected based on simple random sampling technique from all selected population.

For reliability and validity of the questionnaire, a pilot study was undertaken. Questionnaires were delivered by mail and a self-addressed envelope was included for returning the questionnaire. The response rate was 76%. Ethical principles (confidentiality, anonymity, protection of privacy) were observed. An assurance was given to the respondents that all results will be kept confidential with a promise of anonymity.

FINDINGS

As indicated earlier that total hundred respondents were contacted from the selected four populations. Out of hundred respondents, 76 respondents (76% response rate) participated in this study of which 60 respondents are senior officers and 16 are economist. 70% of respondents had at least 10 years working experience.

Findings from Respondents

The respondents were asked about the adequacy of international funding in Swaziland. Adequacy was measured with the international funding’s sufficiency in helping Swaziland towards the Millennium Development Goals and the timely availability of funds and completion of projects.

- 40% of respondents agreed that the external funds help Swaziland to adequately finance her major projects, that is, timely availability of funds and completion of funds.
- 25% of the respondents said that Swaziland is able to work towards achieving the Millennium Development Goals which include amongst others, offering free education, and eliminating half of the existing poverty levels by the year 2015 with the external borrowing, donations, and grants she receives.

Next question was on how international funds should be allocated to the projects financed by international funds. The objective of the question was to ascertain the respondent's opinion on the allocation of international funds and the reasons for the allocation.

- 30% of the respondents felt that international funding should be channeled to projects relating to the improvement of agricultural facilities as the economy is agro-based.
- 22% of the respondents were backing the financing of health facilities, and most of respondents were highlighting the scourge of HIV / AIDS as an issue requiring urgent attention.

- Only 4% of the respondents felt that international funding should be channeled towards research and development.
- 5% of the respondents were backing the financing of other projects which included water facilities, energy facilities, and Small and Medium Enterprise (SME) funding.
- 16% felt that it should be channeled towards education facilities.

Next question was related to the preferences on the international creditors lending conditions on the different creditors which include the African Development Bank, DBSA, Government of Japan, The Italian Commercial Bank, Hambros Bank.

- 48% of the respondents preferred the African Development Bank Group. And most the respondents were sighting the fact that the ADB is mainly focused on financing development Projects in African Countries which include building earth dams, road infrastructure amongst others that is why it is most preferred. And not surprisingly the ADB is the largest multilateral creditor to the Swazi-Government.
- 42% of the respondents preferred bilateral creditors (Government to Government external debt) which comprises of the Government of Japan (23%) and the Italian Commercial Bank (19%). Most of the respondents were sighting low interest rates on the loans from bilateral creditors and also the fact that bilateral creditors usually offer technical expertise on the projects to be financed.
- Only 5% respondents preferred Hambros Bank.

In the follow up question, respondents were asked to give their opinion on how developing countries can efficiently manage their debt. The objective of the question was to determine the debt management strategies for efficient debt management.

- 35% of the respondents felt that the government can efficiently manage debt by having a legislative debt policy to guide government borrowing.
- 20% of the respondents felt that maintaining external debt at sustainable levels which include keeping debt at the acceptable IMF debt ratios (i.e. debt stock to GDP and debt stock to exports) can help the government to effectively and efficiently manage its debt.
- 15% of the respondents felt that implementing proactive debt management strategies which include timely repayment of debt to avoid rollover interest on overdue payments can help the government to efficiently manage her debt.

The next question aimed at finding out the views of the respondents on the criteria used by external lenders to lend money or otherwise to developing countries. The objective of the question was to determine the suitable criteria for international lending for developing countries.

- 45% of the population said that most of the International Funders consider the economic performance of the developing country before they lend money. A majority of the respondents chose economic performance, because they feel that it is more acceptable basis because it determines the country's ability to repay the loan.
- About 30% said that the political character of the developing country is also considered by the International Funders for lending money.
- 15% supported the consideration of past experiences.
- The need for technical skills was only supported by 10% of the respondents.

In the next question, respondents were also asked whether structural adjustments programs like meeting targets in fighting corruption, eliminating impediments to foreign investments, and reducing budgetary expenditures are acceptable basis to determine countries to qualify for debt relief.

- More than half of the respondents (55%) agreed to the above statement
- This was followed by 30% of the respondents who strongly agreed
- 9% respondents did not believe the statement
- 6% respondents strongly disagreed to it

Other Findings

Projects financed by international funding in Swaziland

Figure I: Projects financed by international funding in Swaziland from year 2001 to 2004

No.	1	2	3	4	5	6
Date of loan	31-1-2001	31-1-2001	03-8-2001	17-10-2001	25-11-2001	09-2-2003
Creditor	Govt. of Italy	Govt. of Japan	DBSA	ADB	DBSA	BADEA
Loan (purpose)	East Rehabilitation	West Bank link (Japan Bank Road for Int. Co-op)	Northern SPTC (Telekom Project 1)	Two International Roads (Suupl.)	SPTC (Telekom Project 2)	Lusip Project 1
Currency	ITL	JPY	ZAR	ZAR	ZAR	USD
Loan amount	1 467 203	179 4 412 000	42 903 000	113 000 000	75 662 000	11 680 000
Repay period	15 years	30 years	10 years	15 years	9 years	20 years
No.	7	8	9	10	11	12
Date of loan	24-2-2003	28-3-2003	28-3-2003	21-10-2003	20-10-2003	19-11-2003
Creditor	IFAD	EIB	EIB	NTF-ADB	ADB	DBSA
Loan (purpose)	Lusip Project 1	Lusip Phase 1	Lusip Phase 2	Komati Downstream	Komati Downstream	Lusip
Currency	SDR	EURO	EURO	BUA	ZAR	ZAR
Loan amount	11 900 000	22 500 000	13 500 000	4 950 000	119 000 000	67 000 000
Repay period	15 years	15 years	15 years	20 years	15 years	17 years
No.	13	14	15	16		
Date of loan	19-11-2003	19-11-2003	25-05-2004	25-05-2004		
Creditor	DBSA	ICDF	ADB	ADB		
Loan (purpose)	Lusip	Lusip	Lusip	Mbabane Bypass		
Currency	ZAR	USD	ZAR	ZAR		

Source: Ministry of Finance Swaziland (2005)

CONCLUSIONS

Findings show that the projects financed by international funding in Swaziland from year 2001 to 2004 are mainly agricultural, road construction and urban development. The project with the largest share is the Lusip project, which is an agricultural project (see Figure I). 30% of the respondents felt that international funding should be channeled to projects relating to the improvement of agricultural facilities as the economy is agro-based, it mainly supported by agricultural projects like the sugar industry in the Lubombo region. However, financed by international funding from year 2001 to year 2004 shown in Figure I, no health project was financed by which is much against the 22% of the respondents' opinion. 22% of the respondents were highly concerned with the scourge of HIV / AIDS which requires urgent and undivided attention from the government. Further, the Figure I also shows that no educational related project was financed during that period. It is really surprising as the development of education and health should have been given more priority for sustainable economic development.

Only 25% of the respondents agreed that the external funding helps Swaziland in working towards the Millennium Development Goals (MDGs). It indicates that the international funding is not enough adequate in terms of helping Swaziland in working towards achieving MDGs. However, the MDGs, which include amongst others reducing the existing poverty level by half by the year 2015. Results show that 48% of the respondents preferred the African Development Bank (ADB) as most preferable lending conditions. The bank provides loans, equity and technical assistance to regional member countries at competitive market rates. The study found that, beside economic performance, 30% of the respondents think that the political character of the developing country is also important and needs to be considered in determining the suitable criteria for international lending for developing countries. They think that every sound external lender should concern about political risk. Other factors like past experiences and technical skills are also looked upon by the lenders.

The study mainly focuses on the issue of international funding and its adequacy within the context of Swaziland. As the overall findings indicate that international funding is not enough adequate in terms of helping Swaziland in working towards achieving Millennium Development Goals, a further research would be recommended to find out what Swaziland can do to complement the international funding to help the country in amongst other things to alleviate the high level of poverty and unemployment, improve the country's infrastructure, and economic performance. The study provides useful information on international funding towards achieving Millennium Development Goals with an emphasis on Swaziland which will be applicable to other less developing and developing countries especially in Africa.

REFERENCES

Adedeji, A. (1985). Foreign Debt and Prospects for Growth in Africa During the 1980s. *The Journal of Modern African Studies*, 23(1), 53-74.

Business Report (2011). Swaziland is near financial collapse – IMF. Business Report. Available at: <http://www.iol.co.za/business/international/swaziland-is-near-financial-collapse-imf...2011/06/04>.

Central Bank of Swaziland (2004/2005). Annual Report 2004/2005. CBS, Mbabane, Swaziland.

Central Bank of Swaziland (2008/2009). Annual Report 2008/2009. CBC, Mbabane, Swaziland.

Central Bank of Swaziland (2010/2011). Annual Report 2010/2011. CBS, Mbabane, Swaziland.

International Monetary Fund (2005). Annual Report. IMF, Washington, D.C.

Ministry of Finance Swaziland (2005). Projects financed by international funding document. Ministry of Finance, Mbabane, Swaziland.

O'Neill, H. (1990). Third World Debt: How Sustainable are Current Strategies and Solutions? Frank Cass and Co Ltd - Antony Rowe Ltd. London.

Seiber, M. J. (1982). International Borrowing By Developing Countries. Pergamon Press Inc, New York.

Serkan, A., & Peter, B. H. (2003). Debt Relief: What Do the Markets Think? Research Paper No. 1810. Research Paper Series, May 2003, Graduate School of Business, Stanford.

The New York Times (1991). World Bank Warns on Third World Debt. The New York Times, 16 December 1991. Available at <http://www.nytimes.com/1991/12/16/business/world-bank>. (Accessed on 4th May, 2013).

United Nations (2007). Swaziland – An Assessment of the Investment Climate. Financial and Private Sector Development Africa Region, United Nations, Vol. I: Main Report.

Vollgraaf, R. (2011). SA sanguine over Swaziland debt crisis. Business Times - Sunday Times, South Africa, May 29, 2011, p.5.

World Bank Development Indicator (2011). Swaziland – Country Brief. Available at: <http://data.worldbank.org/data-catalog/world-development-indicators/wdi-2011>. (Accessed on 20th April, 2012).

REACTION TO DECEPTIVE ADVERTISING IN BRAZIL

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ABSTRACT

This paper examines the Brazilian consumers and their reaction to deceptive and non-deceptive advertisings. Two versions of the same ad – one without and another with deception – were exposed to 359 respondents and reactions compared using the Wells scale. It was found that consumers tend not to claim their rights in court when faced by deceptive advertisement. Also, the emotional quotient (EQ) of the deceptive advertisement exceeds that of the non-deceptive, indicating that consumers perceive greater appeal in a deceptive advertisement than in the non-deceptive. The deceptive advertisement is even perceived as more honest than the non-deceptive.

INTRODUCTION

Considering the strong competitiveness existing in current markets, companies strive to convince their target audience that they are the best option in the market to meet the requirements or wishes of the demand. However, very often such persuasion occurs in an anti-ethical, socially irresponsible manner, as when organizations seek to promote themselves and their products in detriment to the wellbeing of the society. For example, a manufacturer that convinces its clients about the value of its product will probably succeed in selling it; but if this manufacturer also causes pollution whose cost is higher than the benefit of the resulting product, the net outcome for the society will be a loss.

The most common tool that the marketing area provides for persuasion is advertising (Boone & Kurtz, 1999), although there are other elements of the marketing mix, such as other types of promotion, the product itself, some pricing techniques and distribution that convince the target-customers about the value of the offer. Adler and Rodman (2003, p.421) say that persuasion is considered ethical if “it is adapted to established standards”, although such standards vary from one situation to another. Advertising obviously shows the positive side of what is being advertised, but there may have advertising pieces that give only half-truths about the advertised product (or service).

Consumers are more prone of having a positive belief or perception about the advertised product or service in response to deceptive advertising (Olson & Dover, 1978). So consumers may perceive the product as more valuable than it really is, when it is communicated through deceptive advertisement. To prevent such situation, there are codes of ethics to be followed, drafted by different agencies, one of the best-known being the American Marketing Association (AMA) in the USA, but in most cases there is no evidence that they are adopted. This raises doubt about ethics in advertising.

In today’s competitive environment there are many ways to attract customers, but few studies investigate whether the customer ceases to admire a firm that uses deceptive advertising. In principle, it may seem obvious that the public’s perception toward such companies will be negatively affected, but it does not always happen in that way. Presumably, if deceived customers do not react to deception, its use will continue, since there is no negative counterpart or penalty for the company.

The purpose of this study is to identify how the Brazilian consumer reacts to companies that disseminate advertising with false or misleading information, announcing unrealistic benefits to the target audience. The contribution is to identify whether consumers’ reaction to a company, once having felt harmed by its advertising or publicity, may influence or reinforce companies to promote even more harm to consumers.

LITERATURE REVIEW

Reaction To Advertising

Advertising is a communication tool closely related to persuasion (Pratkanis & Aronson, 2001), and the reaction to an advertisement is somewhat relevant when analyzing how the consumer perceives the dissemination of a product. A reaction can be understood as a response to some previous action, or stimulus. Thus, if advertisement is understood as a stimulus, reactions could result from exposure to it.

Khan (2006) believes that human behavior is affected by perception. This would be understood as a process consisting of five sub-processes – Stimulus, Registration, Interpretation, Feedback and Reaction. When an individual is exposed to some interesting stimulus, s/he will focus her/his attention on it. Interpretation occurs when meanings are attributed to the sensations felt, which are retained by memory and can lead to consumer behavior with positive or negative feedback for the individual. After interpreting the stimulus and the situation that is grasped by the person’s memory, reaction follows in the form of buying or consuming.

Scales have been proposed to measure reactions from exposure to advertising. The best known is the Emotional Quotient Scale (EQ) by Wells (Wells, 1964; Mello, Fonseca, Neto, & Leao, 2006), starting with a list of expressions and words corresponding to consumer reactions to print advertising. From this list, items assessed empirically as having high or low emotional appeal were identified, consisting of three dimensions, as seen in Table 1. The scale “capture, from the consumer perspective, the immediate emotional reaction to print advertisements” and “measure how effective is the advertising” (Mello *et al.*, 2006). Vieira, Costa, Montaña, & Dill. (2010, p.95) explain that, from the Wells scale, it was possible to develop “a scale of the reaction profile for the ads”, built to identify the reactions of consumers to the advertising that targeted them.

Wells scale is suitable for differentiating the appeal perceived by the target audience of the advertising, so it would help identify between two advertisements which the consumers perceive as having more or less appeal. This could be applied when comparing two advertisements – for example, one misleading and one non misleading. In this case, Wells (1964) uses 12 phrases referring to the advertising or commercial transmitted, six favorably worded and six unfavorably worded, all rated on a 5-point scale varying from “Strongly disagree” to “Strongly agree”, (1- I find this advertising very attractive; 2- I would probably not pay attention to this advertisement if I saw it in a magazine; 3- This is a warm advertisement and affects the emotional; 4- This advertisement makes me want to buy the announced product; 5- I find this advertisement boring; 6- I don’t like this advertisement; 7- This advertising makes me feel good; 8- This is a wonderful advertisement; 9- This kind of advertising is easy to forget; 10- This is an attractive advertisement; 11- I’m tired of this kind of advertising; 12- I’m indifferent to this advertising), where the favorably-worded phrases are numbers 1, 3, 4, 7, 8 and 10, and the rest unfavorable. The agreements with the favorable items are added to the disagreements of the unfavorable items and the total is divided by 12 and multiplied by 100, thereby producing a number between 0 and 100. Multiplying by 100 in this case is only to eliminate the decimal points. The rating of a certain advertisement would be obtained from the average of the total ratings of each respondent. Wells scale indicates how much the audience of the advertising is attracted to it: the higher the rating, the more attraction (Mello *et al.*, 2006)

In addition to Wells scale, with most relevant for this study, other scales were developed for similar purposes by Leavitt (1970) and Schlinger (1984), and Wells, Leavitt & McConville (1971), specifically for TV commercials. This shows that different authors have been interested in studying reaction to advertising, although the Wells scale is more appropriate for print advertising, which explains why it was used in the research. A summary of the dimensions assessed in each can be seen in Table 1:

Table 1 – Dimensions of prominent response profiles, according to the authors mentioned

Wells (1964)	Leavitt (1970)	Wells, Leavitt & McConville (1971)	Schlinger (1984)
Attractiveness; Meaningfulness; Vitality.	Energetic; Amusing; Personal relevance; Sensual; Authoritarian; Romantic; Familiar; Separated.	Humor; Vigor; Sensuality; Singularity; Personal relevance; Irritation; Familiar; Confident.	Entertainment; Confusion; Relevant news; Brand reinforcement; Empathy; Familiarity; Alienation.

Source: Adapted from Zinkhan & Zinkhan (1985)

Striving for Consumer Rights

Marketing professionals have for a long time used emotional and rational appeals to promote ideas, goods and services (Chaudhuri, 2006). The reaction to such appeals can determine a decision in favor or against what is being offered to the consumer. According to Petty & Cacioppo (1986), researchers in the advertising field are concerned with emotional and cognitive reactions to advertising. Two kinds of persuasion have been defended: central, which is analytical and cognitive, and peripheral, which is holistic, synthetic and of an emotional nature. Some companies mislead their customers, and even when they perceive such malevolence they remain loyal to them. Apparently, these customers are ignorant of their basic rights, with some variations across countries.

The first time basic consumer rights were strongly addressed was in 1962, when US President John F. Kennedy, in a speech in Congress, presented the four basic consumer rights (Consumers' Bill of Rights), which, although not definitive, were the basis for consumers to now feel that they had a certain protection in relation to their interests in the relationship with companies that wanted only to obtain advantages over customers and were not concerned with their satisfaction (Hawkins, Best, & Coney, 1995; Boone & Kurtz, 1999). These rights are originally: (i) the right to safety (refers to the protection against goods and services that may cause a hazard to health or life for the consumer, when used regularly); (ii) the right to be informed (means that the consumer must be given necessary – and enough – information to make intelligent and safe decisions, based on an informed choice, protected against misleading, cheating, illusory or fraudulent appeals displayed in advertisements, labeling, packaging and so on); (iii) the right to choose (this addresses guaranteed access to a wide range of goods and services at reasonable and competitive prices, with satisfactory quality); and (iv) the right to be heard (to have the assurance that consumer interests will be considered when formulating and putting in place government policies, and fair treatment will be provided, including consumer compensation when required).

In the USA, the consumer rights movement began in 1936 when the Consumers' Union was set up – today with millions of members, and whose focus is on performing tests on goods and services and providing information to consumers (*Instituto Brasileiro de Defesa do Consumidor* [IDEC], 2009). In Europe, the Consumer's Council, inaugurated in 1947 in Denmark, determined consumer consciousness, leading to the emergence of similar agencies in other countries (Dubeux & Kamlot, 2009). In developing countries this movement is more recent; in Brazil, for example, it only began in the 1970s with the creation of PROCON (Program for Consumer Guidance and Protection) and INMETRO (National Institute of Metrology, Standardization and Industrial Quality), with its focus on increasing safety of products offered on the market by industry. It was only in the 1980s with the rise of the National Consumer Protection Council that there was a more substantiated direction, which originated the Consumer Protection Code, including the rights addressed in the Brazilian Constitution (IDEC, 2009).

Proliferation of deceptive advertisements presumably occurs due to consumers failing to react against the contrivances created to deceive them. Broadbridge & Marshall (1995), when investigating the behavior complaints and protests of consumers, noticed that on several occasions they do not complain to the provider of the demanded product or service, in what is described as *Do-nothing* behavior. This occurs with customers of supermarkets (70% do not complain of anything that has been harmful to them), cosmetics (45%) or of durable goods (30%), generally because consumers think that "it is not worth spending time and effort" (Broadbridge & Marshall, 1995, p.10). Our study focuses on Brazilian consumers, bearing in mind that they have less experience with claiming their rights, since their consumer protection code is much recent than those in more developed countries, so the hypothesis to be tested is:

H1: Consumers tend not to claim their rights in court when faced by deceptive advertisement.

METHOD

The study was undertaken in the city of Rio de Janeiro, Brazil, between June and July 2012. The sample of 359 interviewees was made up of 49% men and 51% women. Their academic level shows a prevalence of people with complete high school and incomplete university education (44.6%), coherent with the predominant 18-24 age group (42.1% of the sample), 17.2% over 51 years old, 12.7% in the 25-31 age group, 11.4% between 32 and 38 years old, and 10.0% between 39 and 45 years old. The majority (59.3%)

of respondents were single.

We performed an experiment using two groups: one group was exposed to deceptive advertisements and the other to the same advertisements in their non-deceptive version. A test was also performed to check about differences between respondents of both groups, but no difference was found: the variables were tested for gender ($t=1.237$; $p\text{-value}=0.217$), age ($t=0.859$; $p\text{-value}=0.391$), marital status ($t=-0.617$; $p\text{-value}=0.538$), social class ($t=0.832$; $p\text{-value}=0.406$), education ($t=-0.634$; $p\text{-value}=0.527$) and occupation ($t=1.624$; $p\text{-value}=0.106$), and in none of these cases was the zero hypothesis of equality between the groups rejected, which indicates the homogeneity among the respondents.

To test the H1 hypothesis, respondents received a printed advertisement of tooth paste in the deceptive ($n = 190$) and non-deceptive ($n = 169$) versions, and answered a questionnaire. The deceptive version contained several contrivances against the codes regulating advertising in Brazil, while the non-deceptive was completely lawful, adopting all necessary details so as not to be misleading. The product was chosen because it is used by 98.4% of adults who brush their teeth (Figueiredo, Silva, & Bez, 2008), therefore it would not be a novelty for practically any respondent. The participants in the study answered whether they considered such advertising deceptive or not, and what they would do after looking at it. The idea, in this case, is to assess, among those who perceive deceptive advertising, their later behavior, noting whether they would take action with some specific agency, would tend to buy the product, would complain about it or would do nothing (this option would be the expected answer by whoever considered the advertisement non-deceptive, since it would make no sense to exercise their rights when they perceive nothing wrong with what was presented). We adapted the scales of Baker & Churchill (1977) and Bower (2001), using 5-point Likert to identify what the respondent would do based on the information received, and also used the Emotional Quotient Scale (EQ) (Wells, 1964).

RESULTS AND ANALYSIS

After selecting the respondents who considered the advertisement deceptive ($n=241$), we identified those who agreed (or strongly agreed) that would do nothing – that is, the consumers who would not exercise their rights – although they had felt harmed by the contents of the advertisement (regardless of being actually deceptive or not, since what was analyzed here is perception), as shown in Table 2.

Table 2 – Answers to “Have you already taken action against some company that you felt deceived you with some commercial or advertisement?”

No, although having been cheated by a company, I've never acted against it	36.7%
No, I've never felt cheated by a company	30.1%
Yes, I called the company's customer support and asked for compensation	16.5%
Yes, I took it to court	9.3%
Yes, I went to the consumer protection agency and filed a complaint	7.4%

Source: Field survey (2012)

Testing if the average in the case exceeds 4, the minimum value that represents agreement with the affirmative that they would do nothing, the result was: $n = 241$; $\bar{x} = 4.2407$; $\mu_0 = 4$; $s = 1.23835$; where: n : Size of sample; \bar{x} : Average of sample; μ_0 : Value used to compare with \bar{x} ; s : Sample standard deviation;

H1 was accepted ($t = 3.017$; $p = 0.00$), which leads to rejection of the null hypothesis of equality between the quantities of consumers that intend to claim their rights in the legal sector, and those who have no such intention. So, the quantity of consumers who would do nothing after feeling cheated by an advertisement exceeds those who would do something (such as complain to the relevant agencies or to the company that disseminated the advertisement), meaning that consumers tend not to claim their rights in court when faced by deceptive advertisement.

Wells scale (1964) was used to analyze the consumers' reaction to deceptive and non-deceptive advertising. First, the emotional quotient (EQ) was calculated for both advertising pieces to compare their values, which would consequently indicate the emotional appeal of each type of advertising, in the eyes of the public in the study. In practical terms, the higher the score, the greater the appeal of the advertisement.

In the present case, the field results are found in Table 3:

Table 3 – Field data for calculating the EQ

	Non-deceptive advertising					Deceptive advertising				
	SD	D	N	A	SA	SD	D	N	A	SA
I find this advertising very attractive	136	16	15	5	1	142	19	12	10	11
I would probably not pay attention to this advertising if I saw it in a magazine	25	33	21	24	70	48	25	12	38	71
This is warm advertising and affects the	127	20	17	8	1	162	12	8	1	11
This advertising makes me want to buy the advertised product	140	19	12	2	0	154	20	3	4	13
I find this advertisement not very interesting	14	13	13	22	111	30	10	9	33	112
I don't like this advertisement	3	8	26	21	115	13	12	43	32	94
This advertisement makes me feel good	120	19	23	5	5	123	16	39	3	12
This is a wonderful advertisement	137	15	13	2	6	152	12	11	4	15
This kind of advertising is easy to forget	13	32	27	30	71	10	11	17	37	119
This is attractive advertising	121	24	15	9	3	130	28	17	7	11
I'm tired of this kind of advertising	15	9	53	27	67	16	6	69	21	75
I'm indifferent to this advertisement	13	26	34	25	74	13	3	30	17	122

Source: field study (2012)

Legend: SD=Strongly disagree; D=Disagree; N=Neutral; A=Agree; SA=Strongly agree.

Based on the data shown in Table 3, EQ was calculated, with the following results: EQ_{non-deceptive} = 12.09; EQ_{deceptive} = 12.84. Although there was little difference, it is found that the emotional quotient of the deceptive advertisement exceeds that of the non-deceptive. In other words, consumers perceive greater appeal in a deceptive advertisement than in the non-deceptive advertisement. This result makes sense, bearing in mind the reality of the markets; to call consumers' attention there is always an ethical limit to be followed, and if all companies bore in mind that such a limit has to be respected, they would all be restricted somehow to a specific threshold. When companies that use bait or contrivance attract the attention of potential customers, this limit would be exceeded, and attractions, which will never be delivered or respected, will call consumer attention. Deceptive advertising where the announced price is extremely low tends to attract more attention – and therefore more appeal – of those interested in the product in question. The later disappointment does not contribute for consumers to mistrust beforehand the commercial addressed to them.

Wells (1964) proposes yet another scale to compare the reaction of the interviewees to the displayed advertisements. Using a semantic differential scale (created by Wells (1964)), each group of respondents individually assessed each advertisement (deceptive or otherwise) to comprise the reaction profile for each. The scale consisted of adjectives shown in Table 4, which should be rated on a scale of seven (7), with the results shown in this table:

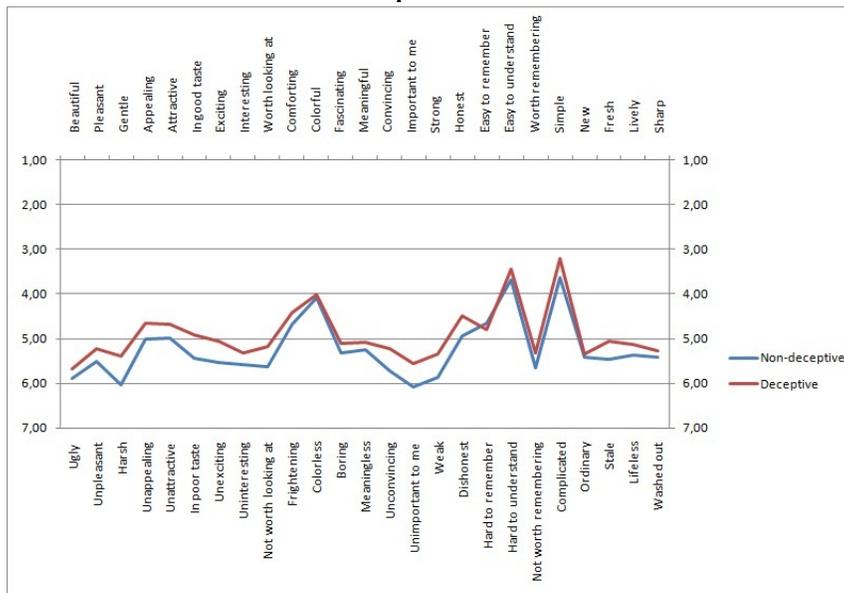
Table 4: Field results using the scale of semantic differential of Wells (1964) for deceptive and non-deceptive advertising

	In blue: non-deceptive	In red: deceptive	
Beautiful	5.90	5.67	Ugly
Pleasant	5.52	5.22	Unpleasant
Gentle	6.04	5.39	Harsh
Appealing	5.01	4.65	Unappealing
Attractive	4.99	4.68	Unattractive
In good taste	5.44	4.91	In poor taste
Exciting	5.53	5.05	Unexciting
Interesting	5.58	5.32	Uninteresting
Worth looking at	5.63	5.17	Not worth looking at
Comforting	4.68	4.42	Frightening
Colorful	4.09	4.01	Colorless
Fascinating	5.31	5.10	Boring
Meaningful	5.24	5.09	Meaningless
Convincing	5.71	5.24	Unconvincing
Important to me	6.07	5.56	Unimportant to me
Strong	5.86	5.34	Weak

Honest	4.93	4.48	Dishonest
Easy to remember	4.64	4.80	Hard to remember
Easy to understand	3.69	3.44	Hard to understand
Worth remembering	5.66	5.33	Not worth remembering
Simple	3.63	3.22	Complicated
New	5.40	5.34	Ordinary
Fresh	5.47	5.06	Stale
Lively	5.38	5.14	Lifeless
Sharp	5.40	5.27	Washed out

Source: Field survey (2012)

Graph 1 – Semantic differential scale



Source: Field survey (2012)

It is found that bad adjectives predominated for both advertisements. Both the deceptive and non-deceptive version did not please the respondents, but there was a slight difference in favor of the deceptive, which had a general rating of 4.92 against 5.23 for the non-deceptive (higher ratings mean worse results). The non-deceptive advertising exceeded the deceptive only on the “easy to remember” item, as shown in the Graph 1, presented to ease the comparison of the results. Thus, it is apparent that the general reaction to deceptive advertising tends to exceed that in relation to the non-deceptive.

It cannot be said that there is a considerable difference between the averages (for $\alpha=0.05$, $p=0.225$ is obtained, and $t=-1.229$), but the slight difference observed demonstrates that the population proves to be no great admirer of non-deceptive advertising, nor perceives major differences between versions with and without bait advertising. This indicates that possible future stricter control by responsible agencies for the distribution of general advertising might be necessary to moderate the degree of contrivance released to the consumer market in advertising.

The deceptive advertisement is even perceived as more honest than the non-deceptive. This could turn into a future problem for the government, when trying to create public policies to advertising (which does not exist in Brazil presently). When consumers accept dishonest ads as a usual way to communicate with them, the whole society seems to be in danger, and the adequate entity to regulate the communication means is the government. So, aiming at the future wellbeing, this entity should be aware of what is happening in the market.

A factorial analysis was undertaken of the components in the reaction profile to deceptive and non-deceptive advertising. Starting with the reaction to non-deceptive advertising, three factors were obtained – just as also measured by Wells (1964), who called them Attractiveness, Meaningfulness and Vitality –, as shown in Table 5. Before performing such an analysis, KMO (Kaiser-Meyer-Olkin) statistics were calculated (using the SPSS v18 software), which is a measure of joint correlation that assesses the suitability

of the sample with regard to the partial correlation degree between the variables (Fávero, Belfiore, Silva, & Chan, 2009). For non-deceptive advertising, this value was 0.935, which means excellent suitability for using such analysis, since values close to 1 indicate close correlation between the variables. The first factor in this case, called Attractiveness, explains 52.4% of the accumulated percentage of the observed variance. The second factor, Meaningfulness, explains another 6.78%, and the third factor, Simplicity, another 6.0%.

In the case of deceptive advertising, the KMO value was 0.946, also indicating excellent suitability (Fávero *et al.*, 2009). When doing the factorial analysis, the factors obtained were shown in Table 6. In this case, the first factor (Attractiveness), explains 54.0% of the accumulated percentage of the observed variance. The second factor, Meaningfulness, on the other hand, explains 8.23% and the third factor, Simplicity, explains 5.9% of the variance. It is apparent that the component variables of the factors referring to deceptive and non-deceptive advertising are quite similar. The first factor (which explains a much higher percentage of the variance) in both cases indicates that the advertisements apparently emphasize aspects linked to the audience's emotions, since most of their component variables are of this nature.

Table 5 – Factors – non-deceptive advertising				Table 6 – Factors – deceptive advertising			
	Component				Component		
	1	2	3		1	2	3
Beautiful	.737	.343	.100	Beautiful	.743	.384	-.043
Pleasant	.761	.390	.141	Pleasant	.787	.287	.070
Charming	.760	.371	.021	Charming	.740	.463	-.061
Appealing	.816	.163	.166	Appealing	.816	.230	.127
Captivating	.812	.218	.225	Captivating	.831	.221	.120
In good taste	.723	.399	.151	In good taste	.833	.252	.085
Exciting	.694	.371	.110	Exciting	.723	.433	.160
Interesting	.644	.566	.055	Interesting	.719	.526	.004
Comforting	.635	.140	.063	Worth looking at	.689	.482	-.015
Colorful	.520	.325	.343	Comforting	.735	.174	.137
Lively	.558	.539	.191	Convincing	.670	.511	.038
Worth looking at	.402	.662	.133	Honest	.660	.141	.150
Fascinating	.499	.591	.142	Fascinating	.589	.640	.094
Meaningful	.383	.715	.184	Meaningful	.571	.643	.132
Convincing	.438	.688	.128	Important to me	.608	.610	-.104
Important to me	.442	.684	-.011	Strong	.484	.680	.090
Strong	.512	.667	.073	Easy to remember	.361	.496	.355
Honest	.112	.602	.303	Worth	.560	.594	.029
Easy to recall	.188	.619	.376	Fresh	.292	.691	-.226
Worth remembering	.311	.755	.118	Modern	.207	.682	-.005
Fresh	.187	.763	-.027	Lively	.195	.821	.062
Modern	.493	.515	.098	Penetrating	.285	.807	-.025
Penetrating	.222	.683	.254	Colorful	.135	.422	.475
Easy to understand	.166	.204	.876	Easy to understand	.107	-.033	.856
Simple	.148	.121	.878	Simple	.043	-.135	.825

Source: Field survey (2012)

Source: Field survey (2012)

FINAL REMARKS

This study investigated the reaction of consumers when exposed to deceptive advertisements, observing that most of them do not exercise their rights after encountering a situation in which they have been harmed by a deceptive advertisement. Only a few mentioned searching for legal entities to seek compensation for possibly suffering some damage. The results ratify the findings of Broadbridge & Marshall (1995), who mentioned the behavior called *Do-nothing*; that is, when consumers, even when feeling harmed by their purchase, fail to complain. For the Brazilian consumers in the study, this conduct prevails.

Using Wells scale (1964), the consumer reaction was analyzed in relation to deceptive and non-deceptive advertisements. The general reaction to deceptive advertising exceeded, although with little difference, the reaction to the non-deceptive. Thus, it can be said that the deceptive advertisements presented are more attractive than the non-deceptive. This is one more topic that deserves researchers' attention, since attractiveness has not yet been analyzed in the literature when comparing anti-ethical and ethical messages, in advertising or any other communication tool.

This study contributes to furthering the knowledge regarding consumer reaction to deceptive advertising: most respondents did not seek for their rights, even perceiving that they were exposed to deceptive ad. So, in weaker regulated markets advertising agents could create deceptive or anti-ethical commercials, without causing major commotion among those who would be the target of the disseminated messages. It is a hazardous situation for the society that strives to prevent the proliferation of such communication. The same results can also be felt as indicative of what occurs in TV commercials and the Internet – a suggestion that this could be a future subject of new studies. A typical example of such a situation would be the widespread spams to mislead the consumers targeted for these kinds of deceptive advertising. Public policy implications include the dilemma of strengthening the legislation in nations where the society is not affluent enough to regulate itself, leaving to the nation state the role of regulating the market.

Since the sample of this study consisted only of Brazilians, whose reality is different from that of consumers in other countries, the advancement of this study in other markets may be performed for comparative analysis. Another suggestion for future research would be to analyze the reaction to abusive advertising – commercials that incite violence, discrimination, environmental disrespect or that induce consumers to behave in detriment to their health or safety.

REFERENCES

- Adler, R. B., & Rodman, G. (2003). *Comunicação Humana*. (7. Ed). Rio de Janeiro: LTC.
- Baker, M. J., & Churchill, G.A. (1977, November). The Impact of Physically Attractive Models on Advertising Evaluations. *Journal of Marketing Research*, XIV, 538-555.
- Boone, L.E. & Kurtz, D.L. (1999). *Contemporary Marketing*. USA: The Dryden Press.
- Bower, A. B. (2001). Highly Attractive Models in Advertising and the Women Who Loathe Them: The Implications of Negative Affect for Spokesperson Effectiveness. *Journal of Advertising*, XXX(3), 51-63.
- Broadbridge, A., & Marshall, J. (1995). Consumer Complaint Behavior: the Case of Electrical Goods. *International Journal of Retail & Distribution Management*, 23(9), 8-18.
- Chaudhuri, A. (2006). *Emotion and Reason in Consumer Behavior*. Oxford: Elsevier.
- Dubeux, V., & Kamlot, D. (2009, December) Marketing e Responsabilidade Social: uma Revisão de Conceitos. *Revista Marketing*, (443), 67-72.
- Hawkins, D.I., Best, R.J., & Coney, K.A. (1995). *Consumer Behavior: Implications For Marketing Strategy*. (6th ed). Chicago: Irwin.
- Fávero, L.P., Belfiore, P., Silva, F.L., & Chan, B.L. (2009). *Análise de Dados: Modelagem Multivariada para Tomada de Decisões*. Rio de Janeiro: Elsevier.
- Figueiredo, M.C., Silva, D.D.F., & Bez, A.S. (2008). Autopercepção e Conhecimento sobre Saúde Bucal de Moradores de uma Comunidade Carente do Município de Porto Alegre-RS. *Conscientiae Saúde*, 7(1), 43-48.

IDEC. Instituto Brasileiro de Defesa do Consumidor. Recovered on 09/5/2009 from <http://www.idec.org.br/>.

Khan, M. (2006). *Consumer Behavior and Advertising Management*. New Delhi: New Age International.

Mello, S.C.B., Fonseca, F.R.B., Neto, A.F.S. & Leao, A.L.M.S. (2006, Jan-Apr). Acessando a Reação Emocional à Propaganda por Meio da Escala de Wells. *Revista FACES Adm.*, 5(1), 26-40.

Olson, J.C. & Dover, P.A. (1978, February). Cognitive Effects of Deceptive Advertising. *Journal of Marketing Research*, 15, 29-38.

Petty, R.E. & Cacioppo, J.T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York: Springer-Verlag.

Pratkanis, A.R. & Aronson, E. (2001). *Age of Propaganda: the Everyday Use and Abuse of Persuasion*. U.S.A.: Henry Holt.

Vieira, G.B.B., Costa, F.C.X., Montaña, M.P. & Dill, J.S. (2010, April). Reações Emocionais à Marca: Um Estudo sobre as Relações Estabelecidas entre Indivíduos e o Iphone. *Revista Ingepro*, 2(4).

Wells, W.D. (1964, October). EQ, Son of EQ, and the Reaction Profile. *Journal of Marketing*, (28), 45-52.

Zinkhan, G.M., & Zinkhan, F.C. (1985). Response Profiles and Choice Behavior: an Application to Financial Services Advertising. *Journal of Advertising*, 14(3), 39-66.

A JOINT REPLENISHMENT MODEL UNDER TRANSPORTATION BATCH AND QUANTITY DISCOUNTS

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ABSTRACT

Under a global competitive market, improving competitive edges to meet rapidly changing technological innovations and dynamic customer needs is important for firms. How to provide products with a high quality, lower cost at the right time and place is important for manufacturers to maintain a competitive edge and to make a decent profit in a longer term. This paper considers a joint replenishment problem, and the objective is to minimize total costs, where the costs include major and minor ordering cost, purchase cost, holding cost and transportation cost. The joint replenishment problem is first formulated as a mixed integer programming model. Then, an efficient particle swarm optimization model is constructed for solving large-scale lot-sizing problems. An illustrative example in a high-tech manufacturer is used to illustrate the practicality of these models for determining the replenishment level from multiple suppliers for multi-periods.

INTRODUCTION

Joint replenishment problem has been a popular issue in both the academic field and in real practice. With the increasingly complicated manufacturing environment and fierce market competition, the joint replenishment problem is becoming more difficult to solve. The intention of this research is to construct a joint replenishment model with transportation batch and quantity discounts to minimize total cost over the planning horizon under the requirement that no inventory shortage is allowed in the system.

Quantity discounts is a common practice in purchasing activities. Two major types of quantity discounts are existed: all-units discount and incremental discount (Cha and Moon, 2005). Under the all-units discount, the discounted price, which is set by the purchased quantity belonging to a specified quantity range, is applied to all units beginning with the first unit. Under the incremental discount, the discounted price is applied only to those units inside the quantity range; therefore, different prices are applied to the units belonging to different price breaks.

Transportation cost is one of the major parts of the total operational cost. In most inventory models, however, the transportation cost is usually considered implicitly in fixed setup or ordering cost, and it is assumed to be independent of the size of the shipment (Ertogral *et al.*, 2007). Ertogral *et al.* (2007), by incorporating all-unit-discount transportation cost explicitly, developed integrated models to tackle a vendor-buyer lot-sizing problem under equal-size shipment policy.

PSO was proposed by Kennedy and Eberhart (1995) in the mid-1990s while simulating the choreographed, graceful motion of swarms of birds. As part of a sociocognitive study, the notion of “collective intelligence” in biological populations was investigated. PSO is inspired by the ability of flocks of birds, schools of fish, and herds of animals to adapt to their environment, by implementing an “information sharing” approaches to find rich sources of food and avoid predators (Taleizadeh *et al.*, 2009). PSO has been used to solve the joint replenishment problem with quantity discounts so that near-optimal solutions can be produced in a short period of computation time.

The remainder of this paper is organized as follows. In section 2, the problem under consideration and the assumptions are described. The constructions of the MIP model and the PSO model are presented in section 3. Case study is carried out in section 4. Some conclusion remarks are made in the last section.

ASSUMPTIONS AND NOTATIONS

This study is to construct a replenishment model for multiple periods under an environment with transportation batch and quantity discounts. Without loss of the generality, the notations are extended from those used in the models of Kang and Lee (2010), Lee and Kang (2011), Kang *et al.* (2012) and Lee *et al.* (2013). The environment is as follows:

- The replenishment lead time is of known duration, and the entire order quantity is delivered at once in the beginning of a period.
- The demand of each period is independent and known.
- At most one order can be placed in each period.
- The replenishment quantity is unconstrained.
- Replenishment is instantaneous.
- The total costs include major and minor ordering cost, holding cost, purchase cost and transportation cost.
- The initial inventory level is zero.
- No inventory shortage is allowed in the system.

All the required notations in this paper are defined as below.

Notations

Indices:

I	Part ($i = 1, 2, \dots, I$).
j	Supplier ($j = 1, 2, \dots, J$).
t	Planning period ($t = 1, 2, \dots, T$).
k	Price break ($k = 1, 2, \dots, K$).

Parameters:

d_{it}	Expected demand of part i in period t .
h	Inventory holding cost, per unit per period.
\hat{O}	Major ordering cost per replenishment.
o_j	Minor ordering cost per replenishment from supplier j .
r_j	Transportation cost per time from supplier j .
s_j	The maximum transportation batch size from supplier j .
p_{ijk}	Unit purchase cost of part i from supplier j with purchase quantity under price break k under incremental quantity discounts.
q_{ijk}	The upper bound quantity of part i from supplier j with price break k .
M	A large number.

Decision variables:

Q_{ijt}	Purchase quantity of part i from supplier j in period t .
$P(Q_{ijt})$	Purchase cost for one unit based on the discount schedule of part i from supplier j with order quantity Q_{ijt} in period t .
$\lceil Q_{ijt}/s_j \rceil$	The smallest integer greater than or equal to Q_{ijt}/s_j .
W_{jt}	Number of transportations from supplier j in period t .
I_{it}	The ending inventory level of part i in period t .
Z_{ijt}	A binary variable, set equal to 1 if a purchase is made, and 0 if no purchase is made, for part i from supplier j in period t .
X_{jt}	A binary variable, set equal to 1 if a purchase is made, and 0 if no purchase is made, from supplier j in period t .
Y_t	A binary variable, set equal to 1 if a purchase is made in period t , and 0 if no purchase is made in period t .

U_{ijk} A binary variable, set equal to 1 if a certain quantity is purchased, and 0 if no purchase is made, for part i from supplier i with price break k in period t .

MODEL FORMULATION

This paper develops a MIP model and a PSO model to solve the joint replenishment problem with transportation batch and quantity discounts in determining an appropriate replenishment policy for each period.

Costs of Materials

Equation (1) calculates the ordering cost for the system, where \hat{O} is the major ordering cost per time, Y_t represents whether a quantity is purchased in period t , o_j is the minor ordering cost per time and X_{jt} represents whether a quantity is purchased from supplier j in period t .

$$(1) \quad \text{Ordering cost} = O = \hat{O} \times \sum_{t=1}^T Y_t + \sum_{t=1}^T \sum_{j=1}^J o_j \times X_{jt}$$

The ending inventory in a period is equal to the ending inventory level in the previous period plus the purchase quantity in the period minus the demand in the period. The holding cost in period t is equal to the holding cost per unit times the ending inventory in period t . The total holding cost for a planning horizon is the summation of the holding cost for each period, as in equation (2).

$$(2) \quad \text{Holding cost} = H = \sum_{t=1}^T \sum_{i=1}^I h_i \times I_{it} = \sum_{t=1}^T \sum_{i=1}^I h_i \times (I_{i,t-1} + \sum_{j=1}^J Q_{ijt} \times Z_{ijt} - d_{it})$$

The purchase cost is obtained by equation (3), where $P(Q_{ijt})$ is the unit purchase cost based on the discount schedule with the order quantity Q_{ijt} , and Z_{ijt} represents whether a quantity is purchased for part i from supplier j in period t .

$$(3) \quad \text{Purchase cost} = P = \sum_{i=1}^I \sum_{j=1}^J \sum_{t=1}^T (P(Q_{ijt}) \times Q_{ijt} \times Z_{ijt})$$

Constraint (4) calculates the transportation cost of the system, where r_j is the transportation cost per time from supplier i per period, $\lceil Q_{ijt} / s_j \rceil$ is the smallest integer greater than or equal to Q_{ijt} / s_j , W_{jt} is number of transportations from supplier i and s_j is the maximum transportation batch size from supplier i .

$$(4) \quad \text{Transportation cost} = R = \sum_{j=1}^J \sum_{t=1}^T r_j \times \lceil Q_{ijt} / s_j \rceil = \sum_{j=1}^J \sum_{t=1}^T r_j \times W_{jt}$$

Mixed Integer Programming (MIP) Model

In this section, we proposed a mixed integer programming (MIP) model to solve the joint replenishment problem and to determine an appropriate replenishment policy for each period.

The MIP model is formulated as follows:

$$(5) \quad \text{Minimize } TC = \sum_{t=1}^T [\hat{O} \times Y_t + \sum_{j=1}^J o_j \times X_{jt} + \sum_{i=1}^I h_i \times I_{it} + \sum_{i=1}^I \sum_{j=1}^J P(Q_{ijt}) \times Q_{ijt} \times Z_{ijt} + \sum_{j=1}^J r_j \times W_{jt}]$$

- (6) subject to $I_{it} = I_{it-1} + \sum_{j=1}^J Q_{ijt} \times Z_{ijt} - d_{it}$,for all i,t
- (7) $\sum_{i=1}^I Z_{ijt} \leq M \times X_{jt}$,for all j,t
- (8) $\sum_{j=1}^J X_{jt} \leq M \times Y_t$,for all t
- (9) $Q_{ijt} \leq M \times Z_{ijt}$,for all i,j,t
- (10) $W_{jt} = \lceil Q_{ijt} / s_j \rceil$,for all j,t
- (11) $P(Q_{ijt}) = \sum_{k=1}^K p_{ijk} \times U_{ijtk}$,for all i,j,t
- (12) $q_{ijk-1} + M \times (U_{ijtk} - 1) \leq Q_{ijt} < q_{ijk} + M \times (1 - U_{ijtk})$,for all i,j,t,k
- (13) $\sum_{k=1}^K U_{ijtk} = 1$,for all i,j,t
- (14) $Y_t \in \{0,1\}$,for all t
- (15) $X_{jt} \in \{0,1\}$,for all j,t
- (16) $Z_{ijt} \in \{0,1\}$,for all i,j,t
- (17) $U_{ijtk} \in \{0,1\}$,for all i,j,t,k
- and all variables are nonnegative.

Particle Swarm Optimization (PSO) Model

In this research, PSO is used to solve the joint replenishment problem with transportation batch and quantity discounts, and some works related to this study are Dye and Hsieh (2010) and Dye and Ouyang (2011). The proposed procedures are as follows:

Step 1. Initialize particles with random positions and velocities on d -dimensions in the search space.

Step 2. Evaluate the fitness of all particles.

Step 3. Keep track of the locations where each individual has its highest fitness.

Step 4. Keep track of the position with the global best fitness.

Step 5. Update the velocity of each particle:

$$(18) \quad v_{k+1}^{\pi} = \chi \left[v_k^{\pi} + \varphi_1 \times rand \times (pbest_k^{\theta} - x_k^{\theta}) + \varphi_2 \times rand \times (gbest_k - x_k^{\theta}) \right]$$

where χ is the constriction factor, v_k^{π} is the velocity of π^{th} particle at the k^{th} iteration, φ_1 and φ_2 are acceleration constants, $rand$ is a random number between 0 and 1, x_k^{θ} is the current position of the π^{th} particle, $pbest_k^{\theta}$ is the best searching experience of π^{th} particle so far at the k^{th} iteration, $gbest_k$ is the best result obtained at the k^{th} iteration, and

$$(19) \quad \chi = \frac{2}{\left| -\varphi_1 - \varphi_2 - \sqrt{(\varphi_1 + \varphi_2 - 4)(\varphi_1 + \varphi_2) + 2} \right|}$$

Step 6. Update the position of each particle:

$$(20) \quad x_{k+1}^{\theta} = x_k^{\theta} + v_{k+1}^{\theta}$$

Step 7. Terminate the process if the standard deviation of fitness is less than an error or the maximum number of iterations is reached; otherwise, go to *Step 2*.

CASE STUDY OF A HIGH-TECH MANUFACTURER

A joint replenishment problem with transportation batch and quantity discounts is solved here. An original design manufacturer in Taiwan purchases some electrical parts from China for assembling various products such as touch panels, smartphones and tablet computers, and then delivers the products to USA, Europe and Japan. In order to obtain the optimal stock replenishment strategy, the production management needs to consider ordering costs, transportation batch and quantity discounts. The objectives of the model are to minimize total cost of satisfying demand, and in turn, to determine the order quantity from each supplier in each period.

Based on an interview with the production manager, the following assumptions are made. Each planning horizon contains seven days, and each period is one day. Thus, each planning horizon contains seven periods. The major ordering cost per replenishment is set to be \$300. The minor ordering cost of supplier A (o_1) and supplier B (o_2) per time is set to be \$150 and \$145, respectively. The transportation cost of supplier A (s_1) and supplier B (s_2) per time per period is set to be \$150 and \$180, respectively. The maximum transportation batch size of supplier A (b_1) and supplier B (b_2) per time is set to be 80 and 100, respectively. The discount schedule for part 1, 2 and 3 are shown in Table 2, 3 and 4 respectively. In addition, we set unit holding cost per period (h), which includes rent for the required space, materials, insurance cost and security cost, to be \$5.

The initial population size is set as 150 in the proposed PSO model, which is implemented by the software MATLAB (2007). The algorithm is terminated after 1000 generations have elapsed. In this case, the best generation occurs at the 121th generations.

Table 1: Demand of each period in a planning horizon.

$t \backslash d_{it}$	1	2	3	4	5	6	7
d_{1t}	250	300	280	220	100	150	200
d_{2t}	300	290	330	270	310	450	280
d_{3t}	290	210	180	140	190	200	240

Table 2: Discount schedule for part $i=1$.

Supplier	Price break (k)	Purchase quantity (Q)	Price per unit ($P(Q)$)
A	1	0~150	\$250
	2	151~250	\$230
	3	251 or more	\$210
B	1	0~150	\$430
	2	151~250	\$425
	3	251 or more	\$405

Table 3: Discount schedule for part $i=2$.

Supplier	Price break (k)	Purchase quantity (Q)	Price per unit ($P(Q)$)
A	1	0~150	\$330
	2	151~250	\$325
	3	251 or more	\$305
B	1	0~150	\$220
	2	151~250	\$210
	3	251~	\$200

Table 4: Discount schedule for part $i=3$.

Supplier	Price break (k)	Purchase quantity (Q)	Price per unit ($P(Q)$)
A	1	0~150	\$350
	2	151~250	\$330
	3	251~	\$310

B	1	0~150	\$530
	2	151~250	\$525
	3	251~	\$505

The solution obtained by the MIP model is shown in Table 5. The replenishment strategy is to purchase 251, 299, 280, 320 and 360 units of part 1 in period 1, 2, 3, 4 and 6 from supplier A, respectively. The replenishment strategy is to purchase 300, 290, 330, 280, 300, 450 and 280 units of part 2 in period 1, 2, 3, 4, 5, 6 and 7 from supplier A, respectively. The replenishment strategy is to purchase 290, 251, 279, 260 and 370 units of part 3 in period 1, 2, 3, 5 and 6 from supplier A, respectively. The total cost is \$1,228,580.

The case is also solved by the PSO model. Table 6 shows that the replenishment policy is to purchase 250, 580, 320 and 350 units of part 1 in period 1, 2, 4 and 6 from supplier A, respectively. The total cost is \$1,268,620, with an error 3.259% from that of the MIP model.

Table 5: Solutions of the MIP model

t	1	2	3	4	5	6	7	TC
Q_{11t}	251	299	280	320		350		\$1,228,580
Q_{12t}								
Q_{21t}	300	290	330	280	300	450	280	
Q_{22t}								
Q_{31t}	290	251	279		260	370		
Q_{32t}								

Table 6: Solutions of the PSO model

t	1	2	3	4	5	6	7	TC
Q_{11t}	250	580		320		350		\$1,268,620
Q_{12t}								
Q_{21t}								
Q_{22t}	920			1030			280	
Q_{31t}	290	390		140	630			
Q_{32t}								

CONCLUSIONS

A joint replenishment problem, which considers dynamic lot-sizing, quantity discount, major and minor order cost, holding cost, transportation cost and purchase cost, is studied. A mixed integer programming (MIP) model and a particle swarm optimization (PSO) model are proposed to devise good replenishment strategies. A MIP model is first constructed to determine the replenishment level of materials. An efficient PSO model is proposed next for solving large-scale problems. By calculating major and minor ordering cost, holding cost, purchase cost and transportation cost, replenishment level and system cost can be determined. In addition, the solution from the MIP model is an optimal solution and from the PSO model is a near-optimal solution.

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REFERENCES

Cha, B.C., & Moon, I.K. (2005) The Joint Replenishment Problem with Quantity Discounts under Constant Demand. *OR Spectrum*, 27(4), 569-581.

Dye, C.-Y., & Hsieh, T.-P. (2010) A Particle Swarm Optimization for Solving Joint Pricing and Lot-Sizing Problem with Fluctuating Demand and Unit Purchasing Cost. *Computers and Mathematics with Applications*, 60(7), 1895-1907.

Dye, C.-Y., & Ouyang, L.-Y. (2011) A Particle Swarm Optimization for Solving Joint Pricing and Lot-Sizing Problem with Fluctuating Demand and Trade Credit Financing. *Computers and Industrial Engineering*, 60(1), 127-137.

Ertogral, K., Darwish, M., & Ben-Daya, M. (2007) Production and Shipment Lot Sizing in a Vendor-buyer Supply Chain with Transportation Cost. *European Journal of Operational Research*, 176(3), 1592-1606.

Kang, H.Y., & Lee, A.H.I. (2010) Inventory Replenishment Model using Fuzzy Multiple Objective Programming: A Case Study of a High-Tech Company in Taiwan. *Applied Soft Computing*, 10(4), 1108-1118.

Kang, H.Y., Lee, A. H. I. & Lai, C. M. (2012) An Integrated Replenishment Model with Quantity Discounts, Reentry and Downward Substitution for Control Wafers. *Journal of Intelligent Manufacturing*, 23(5), 1745-1761.

Kennedy, J., & Eberhart, R.C. (1995) *Particle Swarm Optimization*. *IEEE International Conference on Neural Networks*, Piscataway, NJ, 1942-1948.

Lee, A.H.I., & Kang, H.Y. (2011) Genetic Algorithm to Solve the Lot-sizing Problem with Multi-supplier and Quantity Discount. *IEEE Pacific Rim Conference on Communications, Computers and Signal*, 113-118.

Lee, A.H.I., Kang, H.-Y., Lai, C. M., & Hong, W.-Y. (2013) An Integrated Model for Lot Sizing with Supplier Selection and Quantity Discounts. *Applied Mathematical Modelling*, 37(7), 4733-4746.

Taleizadeh, A.A., Nikpour, S., & Zarei, M. (2009) Constraint Joint-Replenishment Inventory Control Problem with Fuzzy Rough Demand. *Journal of Applied Sciences*, 9(4), 627-638.

FISHER HYPOTHESIS IN KAZAKHSTAN, RUSSIA AND KYRGYZSTAN

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ABSTRACT

This paper examines whether the Fisher Hypothesis holds in three CIS countries – Kazakhstan, Kyrgyzstan and Russia – using quarterly data on three month interest rates on Treasury bills and consumer prices over the period 2002q1-2011q4 (40 observations in total). Before testing the validity of these hypotheses, tests were conducted based on the Dickey-Fuller and Phillips-Perron test statistics to determine the order of integration of the underlying time series. Results obtained show that nominal interest rates on Treasury bills and inflation rates were not integrated of the same order. However, nominal interests turned out to be stationary in all cases when assessed are based on Phillips-Perron tests only under the first difference. Results based on the ARDL test for cointegration show that the FH do not holds in the long run for all countries. The results obtained based on autoregressive model distributed lag model as well as error correction model strongly confirm these results.

One implication that emerges from these results is that Treasury bill markets in the CIS countries under investigation do not provide investors any hedge against inflation. Another important implication is that monetary policy cannot be conducted effectively to contain inflation by reducing interest rates. And the third implication is the probability of poor quality of the source data and not a sufficient length of time series.

INTRODUCTION

Irving Fisher (1930) described an environment where nominal rates respond one-for-one to changes in the expected decline in the purchasing power of money. This "Fisher equation" holds, for instance, in an economy without taxes in which the quantity of lending depends in equilibrium on the real rate of interest received by lenders. (Hanson, Stuart, 1986)

Fisher hypothesis (1930) was tested in different countries during different periods of time. Humphrey (1983) mentioned in his article that the real/nominal rate distinction is of 18th rather than 20th century vintage.

Since inflationary expectations influence nominal interest rate, the Fisher effect has far-reaching implications for debtors and creditors as well as for the effectiveness of monetary policy and efficiency in banking sector. (Hasan, 1999)

Typically, the nominal interest rate on Treasury bills or the expected return on risky stocks must rise by an amount equal to the increase in expected inflation, leaving the real return on these assets to be constant and independent of anticipated inflation over the holding period. (Bhatti et.al. 2011)

The objective of this paper is to examine whether the Fisher hypothesis holds in three CIS countries – Kazakhstan, Russia and Kyrgyzstan – using quarterly data on interest rates on Treasury bills and consumer prices over the period 2002 - 2012. The main objective of this paper is to test validity of Fisher effect in three CIS countries through investigation of long run relationship between interest rate and inflation rate.

LITERATURE REVIEW

Fisher hypothesis and stock market

The Fisherian assumption that real returns are independent of inflationary expectations is soundly rejected for each major stock market of the world. Solnik (1983). The author used interest rates as a proxy for expected inflation, the data provide consistent support for the Geske and Roll model whose basic hypothesis is that stock price movements signal (negative) revisions in inflationary expectations. Firth (1979) examined

the relationship between inflation and the rates of return on common stocks using British data. The result of the research show that stock market returns in Britain do provide some support for the 'Fisher effect. Additionally, there was no statistically significant evidence that publicly available information on rates of inflation could be used to earn superior stock market returns.

Fisher hypothesis and Treasury bill market

Hafer and Hein (1985) compare the relative forecasting accuracies of the interest-rate model, a univariate time-series model of inflation, and forecasts taken from the American Statistical Association-National Bureau of Economic Research (ASA-NBER). Hein and Koch (1988) compare inflation forecasts derived from tax-exempt yields to those from taxable Treasury bills.

Hafer and Hein (1990) used Fama and Gibbons's methodology to address the question of whether nominal rates in Belgium, Canada, England, France, and Germany provide accurate forecasts of their rates of inflation. Previous studies using this forecasting procedure have relied on U.S. Treasury bill data. In their article Hafer and Hein (1990) used 1-month Eurocurrency rates reported by the Harris Bank of Chicago.

Fisher effect in interest rate determination equations have been included and verified by such authors like Fama (1975), Graham (1988). Crowder (2003) tested Fisher hypothesis in nine industrialized countries and the results were supportive of Fisher hypothesis. The author used unit root test and panel cointegration tests in his paper.

Feldstein (1976) has explored the impact of inflation in a growing economy. The author mentioned that the presence of the corporate and personal income taxes substantially alters the effect of inflation on the capital intensity of production, the market rate of interest, and the real net return to savers. Hafer and Hein (1990) found that based on the evidence from Belgium, Canada, England, France, and Germany time-series forecasts of inflation have equal or lower forecast error and produce unbiased forecasts more often than the interest-rate model. The other important finding of authors is that the interest-rate model forecasts may provide marginally useful information that allows one to improve on the time-series inflation forecasts. Hasan (1999) proved acceptance of partial Fisher hypothesis in Pakistan suggesting that interest rate does not fully cover inflation. It means that bank deposits deteriorate over time so that investors will be looking for alternative investment opportunities such as equity, bonds, foreign currency etc. The author claims that the monetary policy may not be effective in such a situation. Also, results show that the market (banking sector) is inefficient. The failure of interest rate to perform its role as a hedge against inflation and as a predictor of inflation needs innovation and financial engineering for better alternatives in the banking sector.

Fisher hypothesis was criticized by such authors as Darby (1975). He argues that in an efficient capital market, in which taxes are imposed on interest income, the nominal interest rate in equilibrium must increase by more than the increase in expected inflation so as to compensate the lender not only for a loss of principal due to inflation but also for a loss of return due to tax on interest receipts from the principal. Feldstein (1976) incorporates taxes and shows that this alters effect of inflation on the capital intensity of production, the market rate of interest, and the real rate of return to savers, and that the nominal interest rate rises by more or less than twice the rate of inflation. Hansson and Stuart (1986) concluded that under plausible conditions, one should expect to observe that nominal interest rates move roughly one for one with the rate of inflation. Deviations from such a one-for-one relationship can occur if (i) different types of income are taxed at different rates or (ii) purchasing power parity does not hold exactly. In general, the relationship between interest rates and inflation predicted by the theory here appears to accord closely with most empirical findings. This agreement supports the view that open-economy considerations vis-a-vis capital are important for understanding aggregate economic behavior.

In general, Fisher Hypothesis is still a debatable issue. Although there is a positive relationship between the nominal interest and expected inflation rate, the nominal interest rate seems not to adjust fully to the inflation rate. Bhatti et.al. (2011) Moreover, there were findings that there is negative relationship between expected returns on common stocks and expected inflation rates. Carmichael and Stebbing (1983) present in their paper the fact that Fisher Hypothesis can be completely inverted. Using the data on Australia and United States, Carmichael and Stebbing (1983) presented the evidence which did not reject the inverted Fisher Hypothesis.

METHODOLOGY AND EMPIRICAL RESULTS

This study uses data which is collected from the National Statistics Agency of the Republic of Kazakhstan, KASE, and the statistics obtained from the World Bank. The absence of reliable data that goes back far enough is an obvious drawback for any empirical research of all CIS countries, and Kazakhstan is not an exception.

The data set consists of quarterly observations starting from January 2002 and ending in December 2011 (40 observations in total). Two sets of time series were collected: one on consumer price index (CPI) data and another one on three-month Treasury bills data for three CIS countries- Kazakhstan, Kyrgyzstan, and Russia. Each set of observed series consists of 40 numbers of observations.

The unit root test has been employed for each series. Both Dickey-Fuller (1979) and Philips-Perron tests for unit root were conducted before the test of the Fisher Hypothesis was implemented. The obtained results are presented in the table below:

Table 1: Testing for Unit Root

Variable	ADF		PP	
	Level	First Difference	Level	First Difference
Kyrgyzstan				
i_t	-3.151867	-8.765273*	-3.151867	-9.590367*
Δp_{t+1}	-4.560588		-4.537157	
r_{t+1}	-9.064853		-9.891744	
Kazakhstan				
i_t	-1.636020	-3.670773	-1.302156	-3.625449
Δp_{t+1}	-3.162238		-4.038910	
r_{t+1}	-4.399007		-4.507757	
Russia				
i_t	-2.312627	-7.320432	-2.292873	-7.346677
Δp_{t+1}	-3.909370		-3.909370	
r_{t+1}	-7.348771		-7.367202	

The critical values of ADF and PP test are presented in the table below.

Critical Value	
	ADF and PP
1%	-3.610453
5%	-2.938987
10%	-2.607932

According to the obtained results the nominal interest rates on Treasury bills of all three considerable countries have got a unit root problem in level and no unit root in the first difference, in other words they are integrated in I (1) order. On the other hand, expected inflation and real interest rate series have no unit root problem and are integrated in the I (0).

The basic regression model for testing FH has a following form:

$$i_t = \beta_0 + \beta_1 \Delta p_{t+1} + \varepsilon_{t+1} \quad (1)$$

where,

i_t – the one –period nominal interest rate,

Δp_{t+1} – the expected change in the logarithm of the domestic price index from time t to $t+1$,

ε_{t+1} - an error term.

Fisher Hypothesis itself requires to have two basic restrictions: first is the $(\beta_0, \beta_1) = (0,1)$; and the second is that the error term ε_{t+1} should be stationary.

ARDL Modeling Approach to Cointegration Analysis

Several methods are available for conducting the cointegration test. The most commonly used methods include the residual based Engle-Granger (1987) test, and the maximum likelihood based Johansen (1991);

1995) and Johansen-Juselius (1990) tests. Due to the low power and other problems associated with these test methods, the OLS based autoregressive distributed lag (ARDL) approach to cointegration has become popular in recent years. The main advantage of ARDL modelling lies in its flexibility that it can be applied when the variables are of different order of integration (Pesaran and Pesaran 1997). Another advantage of this approach is that the model takes sufficient numbers of lags to capture the data generating process in a general-to-specific modelling framework (Laurenceson and Chai 2003). Moreover, a dynamic error correction model (ECM) can be derived from ARDL through a simple linear transformation (Banerjee et al. 1993). The ECM integrates the short-run dynamics with the long-run equilibrium without losing long-run information. It is also argued that using the ARDL approach avoids problems resulting from non-stationary time series data (Laurenceson and Chai 2003). As mentioned earlier, the variables considered in this study are a mix of I (0) and I (1) series. The cointegration test methods based on Johansen (1991; 1995) and the Johansen-Juselius (1990) requires that all the variables have to be of equal degree of integration, i.e., I(1). Therefore, these methods of cointegration are not appropriate and cannot be employed. Hence, we adopt the ARDL modelling approach for cointegration analysis in this study.

The ARDL test for a long-run relationship between nominal interest and expected inflation rates is based on a dynamic conditional vector error correction model

$$\Delta i_t = \alpha_0 + \alpha_1 \Delta p_t + \alpha_2 i_{t-1} + \sum_{i=1}^m \beta_i \Delta i_{t-i} + \sum_{i=0}^m \gamma_i \Delta p_{t+1-i} + v_t \quad (2)$$

where the null hypothesis of no cointegration is represented by $\alpha_1 = \alpha_2 = 0$. The null hypothesis of no cointegration can be tested using the F-statistic. The lag length of the error-correction model can be determined, as suggested by Pesaran *et al* (2001), on the basis of three tests: (i) Akaike's Information criterion (AIC), (ii) Schwarz's Bayesian Information Criterion (SBC), and (iii) Lagrange multiplier (LM) statistic for testing the null hypothesis of no serial correlation in residuals. As the order of integration of the nominal interest rate and expected inflation was tested, the ARDL model, as represented by equation (2) for different lag levels and the values of SBC, AIC and the LM tests for different lags was tested and the obtained results are presented in the table below.

Table 2: Statistics for Selecting the Lag Order of the Fisher Equation

	1	2	3	4	5	6	7	8	9	10
Russia										
AIC	-1.996	-1.622	-1.570	-1.568	-1.593	-1.426	-1.272	-1.392	-1.984	-1.876
SBC	-1.818	-1.314	-1.170	-1.074	-1.004	-0.739	-0.485	-0.504	-1.894	-1.282
LM	6.014	6.290	9.459	13.96	18.27	17.44	18.24	24.10	32.88	36.12
DW	1.923	2.013	1.807	1.825	2.057	2.005	2.144	2.575	1.772	2.728
FS	1.416	0.902	1.007	1.233	1.401	0.939	0.733	0.926	1.846	2.114
R ²	0.150	0.157	0.236	0.349	0.457	0.436	0.456	0.602	0.822	0.903
Kazakhstan										
AIC	1.876	1.946	2.088	2.231	2.076	2.249	1.996	2.160	2.154	2.128
SBC	2.094	2.254	2.488	2.725	2.665	2.936	2.782	3.047	3.144	3.222
LM	10.56	12.58	12.87	13.39	20.77	20.91	27.76	28.22	30.54	32.46
DW	2.207	2.036	2.011	2.110	1.905	1.863	1.811	1.950	2.296	1.714
FS	2.853	2.217	1.542	1.157	1.800	1.330	1.984	1.463	1.292	0.979
R ²	0.263	0.314	0.322	0.335	0.519	0.523	0.694	0.705	0.764	0.812
Kyrgyzstan										
AIC	0.871	0.831	0.969	1.050	1.204	1.356	1.410	1.516	1.463	1.589
SBC	1.089	1.139	1.369	1.543	1.793	2.043	2.197	2.404	2.453	2.683
LM	11.06	14.49	14.89	16.85	16.99	17.62	20.44	22.19	26.33	27.58
DW	1.822	2.017	1.977	2.054	1.972	2.060	2.036	1.750	1.683	1.707
FS	3.053	2.746	1.928	1.673	1.231	0.956	0.914	0.762	0.771	0.504
R ²	0.276	0.362	0.372	0.421	0.425	0.440	0.511	0.555	0.658	0.689

It is obvious from obtained results that the ARDL model for Russia has the smaller value of AIC and SBC statistics at lags 1, 9, and 10, and minimum values of AIC and SBC -1.996 and -1.818 respectively are fixed at lag 1. But, at the same time according to LM statistic, the ARDL model for Russia suffers from serial

correlation. The minimum lag of the ARDL model for Russia is fixed at 1 based on SBC and AIC respectively to test the null of a no long-run relationship between the nominal interest and inflation in Russia. As evident from Table 2, the null that $\alpha_1 = \alpha_2 = 0$ cannot be rejected for lags 1, 9 and 10 because the computed values of the F statistics are much lower than their asymptotic critical bound values of 3.62 and 4.16 as tabulated for I (0) and I (1), repressors at the 5% significance level, implying that in Russia the Fisher hypothesis does not hold in the long-run. The same conclusion can be done also for ARDL models for Kazakhstan and Kyrgyzstan. These models have minimum values of SBC and AIC at lag 1 and 2 respectively, but LM values showed the presence of serial correlation and F-statistic is too small. Therefore, it can be concluded that in Kazakhstan and Kyrgyzstan the Fisher hypothesis does not hold in the long-run.

Table 3: Estimates of the Autoregressive Model Selected Based on SBC or AIC

	Russia	Kazakhstan	Kyrgyzstan
Constant	0.5645 (1.2158)	0.3024 (1.144)	2.3079 (2.0447)
i_{t-1}	0.8664 (8.1296)	1.4284 (9.0592)	0.4633 (2.6259)
i_{t-2}		-0.5139 (-3.1768)	0.1588 (2.8654)
Δp_{t+1}	0.6897 (0.5065)	3.0495 (0.5338)	-0.0705 (1.4601)
Δp_t		1.032 (0.1926)	
Δp_{t-1}			
R^2	0.68	0.91	0.83
DW	1.83	2.02	1.82
LM(2)	27.2	36.4	33.2
FS	17.03	62.39	3.069
HT(1)	0.8719	0.0885	0.7054

$$\Delta i_t = \alpha_0 + \sum_{i=1}^n \beta_i \Delta i_{t-i} + \sum_{i=0}^n \gamma_i \Delta p_{t+1-i} + \phi EC_{t-1} + \nu_t \quad (3)$$

where,

n - the maximum lag length selected by ARDL model,

ϕ - the speed of adjustment and EC_{t-1} is the error correction term representing the speed of adjustment to disequilibrium.

The results that are obtained from the ARDL test for a long-run relationship between nominal interest and expected inflation rates are based on a dynamic conditional vector error correction model are strongly supported by the estimates of both autoregressive equation (2) and error-correction model (3), as shown in Tables 3 and 4. The estimates of equation (2) indicate that expected inflation does not play any role in determining the nominal interest rate on Treasury bills in all cases. The current nominal interest rate on Treasury bills is determined significantly by their past values in cases of Kazakhstan and Kyrgyzstan, but not for Russia. It is also important to note that the estimates of the autoregressive model in almost all cases pass all diagnostic tests. It must be noticed that F-statistics in all cases have got significantly enough values, which means that models have right functional form. The Breusch-Pagan-Godfrey test on homoscedasticity was employed. The models of all three countries do not reject the null hypothesis of homoskedasticity with large p-values.

Table 4: Estimates of the Error Correction Model Selected Based on SBC

	Russia	Kazakhstan	Kyrgyzstan
Constant	0.6538 (1.3041)	0.4681 (1.6570)	3.2457 (2.7221)
Δi_{t-1}	-0.0417 (-0.2031)	0.4235 (2.4194)	0.0724 (1.3523)
Δi_{t-2}		0.2624 (2.4420)	0.3962 (2.1531)
Δp_{t+1}	0.6868	4.9923	-1.8333

	(1.5014)	(1.8627)	(-0.7719)
Δp_t	0.8085 (2.5637)		
EC_{t-1}	-0.1548 (-1.3440)	-0.1230 (-2.012)*	-0.5251 (-2.6420)

Also, the estimates of the error-correction model, as presented in Table 4, show that in case of Kazakhstan and Kyrgyzstan a valid error-correction representation of the FH exist. The only exception in this case is Russia again in which the error correction term has turned out to be significant. However, the coefficient of error correction term for Kazakhstan is not large enough (-0.1230), implying that only 12.3% of the deviations from long run equilibrium relationship are corrected in each quarter. In other words, 49.2% of the deviations from the long run relationship are corrected every year, which means that it takes more than three years to restore the Fisher Hypothesis. On the other hand, the speed of adjustment or correction to the long run relationship is 53% in the case of Kyrgyzstan, implying that it takes two quarters to restore equilibrium between nominal interest rates and expected inflation.

CONCLUSION

The main object of this paper is to test the Fisher Hypothesis for three CIS countries to understand whether or not Treasury bill markets in these countries provide any hedge against inflation. Quarterly data was used on three month Treasury bills and consumer prices index covering the sample period from January 2002 till December 2011 (40 observations in total). Before testing the validity of these hypotheses, tests were conducted based on the Dickey-Fuller and Phillips-Perron test statistics to determine the order of integration of the underlying time series. Results obtained show that nominal interest rates on Treasury bills and inflation rates were not integrated of the same order. However, nominal interests turned out to be stationary in all cases when assessed are based on Phillips-Perron tests only under the first difference. Results based on the ARDL test for cointegration show that the FH do not holds in the long run for all countries. The results obtained based on autoregressive model distributed lag model as well as error correction model strongly confirm these results.

One implication that emerges from these results is that Treasury bill markets in the CIS countries under investigation do not provide investors any hedge against inflation. Another important implication is that monetary policy cannot be conducted effectively to contain inflation by reducing interest rates. And the third implication is the probability of poor quality of the source data and not a sufficient length of time series.

REFERENCES

- Banerjee, A., Dolado, J. J., Galbraith, J. W. and Hendry, D. F. (1993). "Co-integration, error correction and the econometric analysis of non-stationary data". Oxford University Press, Oxford.
- Bhatti R.H., S.H. Lee., M.M. Haque. (2011) "Does Fisher hypothesis hold in CIS Countries?", working paper
- Carmichael, J. and P. W. Stebbing (1983), 'Fisher's Paradox and the Theory of Interest', *American Economic Review*, 73(4), pp.619-630.
- Crowder (2003) "Panel Estimates of the Fisher effect", working paper.
- Darby, M.R. (1975). "The Financial and Tax Effects of Monetary Policy on Interest Rates. Economic Inquiry", vol.13, pp.266-256
- Fama, E.F. (1975) "Short Term Interest Rates as Predictors of Inflation". *American Economic Review*, June: 269-282
- Feldstein, M. (1976) "Inflation, Income Taxes and the Rate of Interest: A Theoretical Analysis", *The American Economic Review*, Vol.66, pp. 809-820
- Firth, M. (1979) " The relationship between stock market returns and rates of inflation", *The Journal of Finance*, vol.34, pp.743-749

- Fisher, Irving. *The Theory of Interest*. New York: Macmillan, 1930
- Graham F.C. (1988) "A Fisher Hypothesis: A Critique of Recent Results and Some New Evidence", *Southern Economic Journal*, Vol.54
- Hafer R.W., Hein S.E. (1990) "Forecasting Inflation using Interest-Rate and Time Series Models: Some International Evidence", *The Journal of Business*, vol.63, pp.1-17
- Hansson, I., Stuart, C. (1986) "The Fisher hypothesis and internal capital markets". *Journal of Political Economy*, vol.94, pp. 1330-1337
- Hasan, H. (1999) "Fisher effect in Pakistan", *The Pakistan Development Review*
- Hein, S.E., and Koch, T.W. (1988) *Interest rates, taxes and short-term inflation forecasts*. Mimeographed. Lubbock: Texas Tech University.
- Humphrey T.M. (1983), "The early history of the real/nominal interest rate relationship", Federal Reserve Bank of Richmond
- Laurenceson J and Chai J. 2003. *Financial Reform and Economic Development in China*. Cheltenham, UK, Edward Elgar.
- Pesaran, M. H., Y. Shin and R. J. Smith (2001). Bounds Testing Approaches to the Analysis of Level Relationships. *Journal of Applied Econometrics*, Vol. 16, pp. 289-326.
- Pesaran MH, Pesaran B. 1997. *Working with Microfit 4.0: Interactive Econometric Analysis*. Oxford, Oxford University Press.
- Solnik B. "The Relation between Stock Prices and Inflationary Expectations: The international evidence", *The Journal of Finance*, vol.38, pp. 35-48

SMALL BUSINESS TAX CONCESSIONS DOWN UNDER

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ABSTRACT

This paper examines Australia's 2009 Henry Review recommendations on small business taxation. In doing so this paper analyses these recommendations having regard to the issue of defining a small business and by examining the various rationales that are commonly extended for such concessions. Notwithstanding these rationales for these tax concessions, such concessions should be used sparingly. Defining a small business is problematic. Tax concessions generally contribute to complexity, inefficiency, inequity and damage fiscal adequacy. This paper submits direct targeted government grants are better alternative to support both small business and the wider economy.

INTRODUCTION

Small business tax concessions are advocated on the need to: offset regressivity of compliance costs; to provide simplicity; the importance of small business to the economy; to address market failures; the asymmetry of taxable profits and losses; and the need to ensure that small businesses can endure events which might threaten to break them up. Australian federal governments' increasingly broaden and tinker with a range of small business tax concessions as they seek electoral support from an estimated 2.7 million small businesses. Consequently, a plethora of costly tax concessions for small business has emerged. Their complexity produces considerable uncertainty as to their practical operation and for many the concession benefits do not appear to outweigh the additional compliance costs. The various concessions favour particular types of businesses with certain structures over other taxpayers and this creates distortions and inequities. Despite noting these concerns, the *Henry Review* (Henry 2009) generally supported the existing small business entities (SBE) tax concessions framework with recommendations that significantly broaden its scope. Consequently, the Government announced a further round of concessions (depreciation concessions) as another electoral cycle comes into play. This paper examines these *Henry Review* recommendations. In doing so, the paper first summarises the background to the current small business tax concessions including the former Simplified Tax System (STS) for small business as well as the SBE regime. The paper then examines the *Henry Review's* recommendations. Finally the paper analyses the *Henry Review's* SBE recommendations having regard to the issue of defining a small business and the examining the various rationales that are commonly provided for such concessions. Notwithstanding the above rationales for these tax concessions such concessions should be used sparingly. Defining a small business is problematic. Tax concessions generally contribute to complexity, inefficiency, inequity and damage fiscal adequacy. This paper submits direct targeted government grants are better alternative to support both small business and the wider economy.

BACKGROUND

Prior to the introduction of the goods and services tax (GST) small business tax concessions did not feature heavily in the taxation landscape. The advent of the GST and the greater regulatory burden on small business and its regressive impact appears to have inspired the 1999 *Ralph Review*' (Ralph Review 1999) Simplified Tax System (STS) to assist small business by way of a "simpler" tax system. The STS commenced on 1 July 2001 and was available to businesses that satisfied a \$1 million STS average turnover and a \$3 million depreciating assets test. The STS concessions consisted of an alternative cash accounting system, a prepayment regime, a simplified and accelerated depreciation regime and a simplified trading stock regime.

However, concerns were raised as to the practical operation of the STS and its inflexibility, complexity and marginal benefits. The STS became subject to extensive critical reviews by academics, practitioners, professional and Government bodies. Consequently, the federal Government implemented a series of amendments to the STS to make it more attractive to small business. The STS cash accounting basis created many problems for small business since they generally presented accounts on an accruals basis. Consequently, subdiv 328-C was repealed and cash accounting was abandoned from 1 July 2005. Further, roll over relief was introduced for STS depreciating assets to match the general depreciation rules. Additionally, new STS concessions were introduced. In 2005 the entrepreneurs tax offset (ETO) was introduced to provide a 25 per cent tax offset on the annual income tax liability attributable to business income of very small businesses. The ETO is gradually phased out when turnover exceeds \$50,000, and businesses with a turnover of \$75,000 are not eligible. An STS exemption also applied to the indirect value shifting rules. Outside of the STS, a range of other small business tax concessions were scattered throughout the various taxation laws. The *Ralph Review's* recommendations for significant small business capital gains tax (CGT) concession were enacted. This consisted of four concessions: the CGT 15-year asset exemption; the CGT 50 per cent active asset reduction; the CGT retirement exemption and CGT roll-over relief. Additionally, under the withholding tax rules, small business could base PAYG installments on GDP-adjusted notional tax. Further, a PAYG installment reduction was available. In respect of the goods and services tax (GST) concessions were provided for small business to permit accounting for GST on a cash basis. Annual apportionment of input tax credits for acquisitions and importations that are partly creditable were allowed for small business. Small businesses could pay GST by quarterly installments. For fringe benefits tax (FBT) purposes small businesses obtained a FBT car parking exemption.

On 12 October 2005 the federal Government commissioned a taskforce chaired by Gary Banks to reduce the regulatory burden on small business. The *Banks Taskforce* found the need to harmonize taxation law definitions and recommended that the definition of a small business be aligned or rationalized (Banks 2006). As a result, on 1 July 2007, the federal Government renamed and modified the STS in Div 328 as part of the new 'Small Business Entities' (SBE) regime. The SBE test provides a new measure for determining what constitutes a small business. From 1 July 2007, SBEs have the choice to apply any of the SBE concessions since they are no longer compulsory, unlike most of the former STS concessions. Under the SBE rules, there is no need to lodge an election with the ATO to access the concessions. The former \$1 million STS turnover threshold was replaced with a \$2 million turnover threshold and the former STS \$3 million depreciating assets test was abolished. *Review*, did not provide any apparent over-arching vision for the ideal tax system, it aspired to raising tax revenue so as to do least harm to economic efficiency, provide equity (horizontal, vertical and inter-generational), and to minimise complexity for taxpayers and the community (Henry Report 2009). The *Henry Review* was conducted over a relatively short period of 19 months (May 2008 to December 2009) given its breadth and complexity. The *Henry Review* produced its first discussion paper, *Architecture of Australia's tax and transfer system* on 6 August 2008 (Henry Discussion Paper 2008). Unfortunately, the paper did not address small business tax concessions. The discussion paper outlined Australia's tax and transfer systems to inform public discussion. The paper was not intended to be exhaustive, nor was it intended to limit discussion to the issues raised, and called for public submissions. On 10 December 2008 the *Henry Review* published a consultation paper which outlined the key messages from the submissions received. The diverse views in the submissions for and against such tax concessions illustrate the competing arguments between vested interests.

THE HENRY REVIEW

The *Henry Review* had its origins in the federal Labor Government's 2008-09 Budget which announced a comprehensive 'root and branch' review of Australia's tax system. Commencing on 13 May 2008, the *Henry Review* panel was chaired by the Secretary to the Treasury, Dr Ken Henry. The *Henry Review* studied the Australian tax system and made recommendations to create a tax structure to help Australia deal with the social, economic and environmental challenges of the 21st century and enhance Australia's economic and social outcomes. Whilst the *Henry* and others. The consultation paper also referred to research (Johansson et al 2008) that indicates that small business incentives have no perceptible impact on economic growth. Further, the paper noted that the benefits of the concessions may not outweigh the costs, referring to the discussion of small business issues by Crawford and Freeman (Crawford & Freeman 2008) in the United Kingdom's *Mirrlees Review*. To obtain submission on the usefulness of small business tax concessions, the consultation paper raised the following key question about small business taxation (Henry Consultation Paper 2008 p 155): "Should the tax system be structured to cater for the specific circumstances of small business...". From December 2008 to 1 May 2009 further public submissions were received in response to the questions raised in the consultation paper. However, there were no small business specific organizations

involved in these discussions and consultation with small business was limited. The *Henry Review* provided its report to the Treasurer in December 2009. Whilst the report asserted that favorable treatment of self employed over employees can give rise to efficiency and equity concerns (Henry Report 2009) (and despite the earlier consultation paper noting the research findings that pointed to the ineffectiveness of small business tax concessions), overall the report found that special treatment was appropriate for small business. In doing so the *Henry Review* provided the following rationale: “Small businesses bear a disproportionately higher share of the tax compliance burden. To reduce this burden and to provide small business with greater tax certainty, the existing small business tax concessions should be streamlined and broadened” (Henry Report 2009 p 41).

Consequently, recommendation 30 greatly expanded the scope of the SBE regime by proposing an increase to the SBE turnover threshold from \$2 million to \$5 million, and that the \$6 million net asset value test should be considered for an adjustment (Henry Report 2009). Further, recommendation 17 allowed taxpayers who sell a share in a company or an interest in a trust that is a SBE to access the capital gains tax (CGT) concessions using the turnover test, rather than the current maximum net asset value test (Henry Report 2009). Such owners of SBE businesses will not need to determine eligibility under the maximum net asset value test, and instead rely on the same test used to access the other small business concessions. The *Henry Review* argued that this would rationalize and simplify these concessions (Henry Report 2009). Whilst this provides for some simplification with the removal of the maximum net asset value test, these recommendations would increase the number of eligible businesses and thus the extent of the compliance and administration costs. This also would open tax planning opportunities and lead to tax avoidance as taxpayers restructure their activities to become eligible. Larger businesses with low turnovers and significant CGT assets would be eligible. Such restructuring would distort efficiency and work to stymie small business growth.

Recommendation 29 allowed depreciating assets costing less than \$10,000 to be immediately written-off. The *Henry Review* reasoned that this ‘would allow small businesses to immediately write off most of their asset purchases, simplifying and providing more certain arrangements while also providing cash flow benefits’ (Henry Report 2009, p 41). Recommendation 29 also permitted other depreciating assets (except buildings) to be pooled together, with the value of the pool depreciated at a single declining balance rate. The *Henry Review* asserted this would further simplify the ‘simplified’ SBE depreciation regime (its two pools). The *Henry Review*, though, did propose to remove some of the SBE concessions. Recommendation 17 rationalized the small business CGT concessions to provide simplification given the high complexity and compliance costs by removing the active asset 50 per cent reduction and 15-year exemption concessions (Henry Report 2009). The *Henry Review* argued that these concessions may skew the allocation of resources in the economy to less productive uses and detract from equity goals. Also, the lifetime limit of the CGT retirement exemption would be increased to permanently align it with the capital gains tax cap for contributions to a superannuation fund (Henry Report 2009). The *Henry Review* argued that an increased retirement exemption is justified since many small businesses use the appreciation of value in their business as a lifetime savings vehicle for their retirement. Thus, this exemption should be increased to align it with the concessions available to others within the superannuation system. This would increase the current lifetime limit from \$500,000 to \$1.1 million (in 2009–10) contributions to a superannuation fund derived from the disposal of a small business, and ensure the limit is indexed annually. This recommendation appears equitable given the availability superannuation concessions available to non-business taxpayers. Recommendation 6 proposed to abolish the ETO given its complexity and the way it provides problematic incentives related to business structures (Henry Report 2009). The ETO only applies to very small businesses and about 73 per cent of recipients of the ETO receive less than \$600 (the maximum rebate is \$2,500). This will ensure government assistance is properly targeted and provide a more equitable and neutral treatment between self-employment and employment income.

ANALYSIS

In determining whether small business should be provided with tax concessions, there are two key questions. What is a small business? Should small business receive tax concessions? Defining a small business is extremely challenging. Should a small business be defined qualitatively or quantitatively? For practical reasons qualitative definitions are inappropriate since objective and measurable criteria are needed in legislation. Using quantitative measures brings the problem of ascertaining the parameters, whether it be by sales, profit, assets and / or number of employees. Different parameters will produce different ranges of small businesses. There does not appear to be any clear way of working out when a business ceases to be small. The Australian experience illustrates the dilemma. As noted above, prior to the SBE framework the

various small business tax concessions adopted different parameters and this created uncertainty and complexity. For example, the STS originally required a \$1 million STS average turnover and \$3 million depreciating assets test, whilst other small business concessions provide separate tests. The SBE regime then harmonized the definition of small business for many of the tax concessions. The STS depreciating asset test was abolished and a \$2 million aggregate turnover replaced the \$1m turnover test. This meant, though, that larger businesses with low values of depreciating assets would qualify as SBE (such as start up listed companies). The *Henry Review* further proposed that the aggregate turnover test be increased to \$5 million. The silence in the *Henry Review*'s publications detailing how this parameter was designed illustrates its arbitrariness. Setting parameters also poses the problem of manipulation as businesses restructure so as to access the small business concessions. This is evident with complex anti-avoidance measures in the former STS and in the SBE regime. Overall, there is no consensus on what a small business is, nor is there any consensus about the appropriate parameters. A number of parameters appear to be needed in order to appropriately identify the smaller businesses (to prevent manipulation) but the more parameters the greater the complexity. This seemingly impossible policy problem is illustrated in the many different ways governments' around the world define small business. If a "small business" is to be defined, then standard definitions of 'micro', 'small' and 'medium' businesses should be employed for data collection, analysis and policy development to assist the analysis of the health of the small business sector and promote more informed policy making (Parliamentary Joint Committee 2011).

As to the question whether small business should receive tax concessions, the *Henry Review*'s rationale focused on the need to offset regressivity of compliance costs and to provide simplicity. Other common arguments include: the importance of small business to the economy to address market failures; the asymmetry of taxable profits and losses; and the need to ensure that small businesses can endure break up events. Research in Australia and elsewhere has found that the costs for small business in complying with tax laws are regressive given their lack of resources and expertise (Evans 2003). On this basis, the *Henry Review* called for tax concessions (recommendations 29 and 30) to offset these costs. Although, it is counter argued that small business have a higher non-compliance with tax laws than employees which reduces the regressive impact of compliance. Slemrod provides evidence that non-compliance is similarly regressive to small business as are compliance costs (Slemrod 2004). The smaller the business, the less compliant. Pope also pointed to a number of studies from OECD countries that showed small businesses, especially micro businesses are responsible for a large proportion of tax evasion (Pope 2008). Since many small businesses will comply with tax laws there still exists an argument for tax concessions and exclusions where these provide an overall benefit in simplifying tax laws such that tax revenue and efficiency increase (Gentry 2004). For example, there is an apparent role for exclusions (such as the \$75,000 GST registration turnover threshold) to minimize the compliance and administration costs by reducing the number of affected taxpayers (OECD 1997). However, a high threshold may create inequity between who have to register and those who do not. This is inefficient since competition is impacted as more efficient larger small firms are at a disadvantage.

Tax concessions introduced to reduce compliance costs may also inadvertently increase these costs since the concessions can increase complexity. For example, the complexity of the STS resulted in a low take up by small business given the concession targeted 95 per cent of businesses. Only 14 per cent of eligible small businesses joined by 2002 (*Tax Laws Amendment (Small Business) Act 2007* (Cth)). In later years, the take up rate increased to only 27 per cent of small business and the STS was abandoned on 30 June 2007 (Senate Estimates Committee Hearing, 2009). There is also a trade-off between compliance costs and evasion. Tax concessions introduced to reduce compliance costs may increase opportunities for tax avoidance. For example, the turnover thresholds in the STS and SBE regimes provide avoidance opportunities by artificial means.

Under recommendation 30 the SBE turnover threshold would increase from \$2 million to \$5 million, and the \$6 million net asset value test would be considered for an adjustment. This proposal to broaden the taxpayer eligibility will increase compliance and administration costs associated with the SBE regime, and damage fiscal adequacy. This will also lead to inequity as larger and asset rich small businesses will gain the most from the SBE regime's generous depreciation and CGT concessions. This recommendation also shows how the SBE tax concessions lead to greater calls for concessions by non-SBE taxpayers. Recommendation 29 allows depreciating assets costing less than \$10,000 to be immediately written-off. Again this damages fiscal adequacy and leads to inequity. Further, both of these proposals do not target small business compliance costs, rather they generally benefit certain types of small business owning significant depreciating and CGT assets. Overall, these *Henry Review* proposals are not justifiable, these concessions provide a poorly targeted cash flow benefit. It is noted that the *Henry Review* did not

provide justification for its new determination of a small business, nor discuss research. The issue of small business non-compliance was also ignored. No qualitative or quantitative policy impacts were detailed by the *Henry Review* as to the affect of these recommendations.

The *Henry Review* asserted recommendations 17 and 29 would “simplify” the tax system. However, it is not clear that the \$10,000 depreciating asset immediate write-off and pooling of depreciating assets will provide any simplification given that most small businesses need to produce financial accounting statements based on accounting standards. Consequently, this appears to add to complexity with dual sets of accounts needed. Recommendation 17 proposed removing the CGT active asset 50 per cent reduction and 15-year exemption concessions. These concessions are complex and this proposal is well justified on simplicity grounds. As the *Henry Review* noted, these concessions are also inefficient and inequitable (Henry Report 2009). In summary, small business continually need to keep abreast of an extensive range of ever changing tax concessions and eligibility requirements in order to benefit. The complexity of the concessions means that small businesses rely extensively on professional help. For many these costs outweigh the benefits. The *Henry Review* should have recommended the abolition of small business tax concessions (except for limited threshold exclusions).

Further, it is argued that small business is important since it creates jobs, generates wealth, contributes to innovation and the economy (Birch 1979). In developed countries, there is a strong positive correlation between small business entrepreneurship and GDP growth as well as the level of gross domestic product (GDP) per capita (Pope 2008). In Australia the small business sectors provides about 30 per cent of GDP and from 1983 it has increased at an annual rate of 3.5 per cent per annum (Pope 2001). Whilst large business (with more than 200 employees) has only increased at 2.5 per cent per annum since 1983. In 2011 small business accounts for 96 per cent of all private sector businesses, employing 47 per cent of all private sector employment (ABS Cat No. 8104.0). An OECD report found that the contribution of small business to innovation is increasing as a result of new technologies which make it easier for small businesses to overcome barriers to entry and access larger markets(OECD 2010). In Australia, small businesses account for around one third of research and development of spending in high-tech industries (Connolly et al 2012). However, other studies suggest small business importance is overstated. Research has criticized studies purporting to show the importance of small businesses for job creation (Harrison 1997; Davis et al 1996; De Ruyg 2005). In the United Kingdom research has found that only a minority of small firms generate jobs (Storey 1995; Curran et al 1993; Bannock 2005). This leads to the impossible problem of targeting tax concessions (if justified at all) to such firms. Australia’s former STS, the SBE regime and *Henry Review* small business tax concessions, for example applied to all small businesses. Under these concessions small businesses which do not intend to grow will benefit. Many small businesses do not wish to grow, with owners preferring a manageable scale and lifestyle (Small business roundtable, 2012). Also, hobby and lifestyle businesses will also access these tax concessions (if not subject to the non-commercial loss rules). As noted above, the concessions may result in the restructuring or manipulation of businesses to create a small business in order to qualify for the tax advantages, leading to tax avoidance. Tax concessions targeted at size are blunt instruments, they do not focus on jobs growth. Other parameters such as innovation appear more appropriate. Identifying such firms can be problematical, which firms should be targeted for success or failure? (Holtz-Eakin 2000). In 2009-10, only 42 per cent of small businesses were involved in innovative activity, versus 62 per cent of larger businesses (ABS Cat. No. 8166.0). Even if these firms could be identified, tax concessions are blunt instruments compared to a direct subsidy. If the targeting is not effective then resources will be misallocated and reduce productivity (Henry Report 2009). The US success with its Small Business Innovation Research program (of \$2 billion grants per annum over 26 years) shows though that innovative small business can be targeted and that such grants have a significant impact on catalyzing a broader economic transformation in innovation (Keller & Block 2012).

Small business may face market failure for example as a result of monopoly power of large firms making entry into the market difficult, or difficulties in raising finance due to size. Small business face many barriers to innovation, including access to funding, and there is potential for more firms to innovate with the removal of these barriers (DIISR 2011). Thus, it is argued that tax concessions are needed to promote investment in small firms. It is further contended that this will help the economy as a result of spillover effects from the innovative activity of the smaller firms (Gordon 1998; Aghion et al 2004). The *Henry Review* noted these issues were of a broader concern to all investments and developed a principle that tax concessions are warranted in order to correct market failure (Henry Report 2009). The *Henry Review*, though, made no specific recommendation on market failure in respect of small business. Crawford and Freedman established that tax concessions have a limited role in addressing market failure (Crawford & Freedman 2008). First, market inefficiencies may be the market arriving at the appropriate outcome (Adam

2008). A small business may be declined finance since it is unviable or has a high level of risk. The provision of tax concessions for small businesses are inefficient given they are such a blunt instrument. Such concessions may distort commercial decisions about expenditure, the selection of business organization and the transfer of businesses. This may result in the allocation of resources to small businesses which are less efficient than larger efficient firms. Further, tax concessions may restrict the growth of small business where the concessions are capped according to firm size. The concessions create complexity in the system. Even if problems faced by small business are sufficient to warrant government action, non-tax measures will often be better targeted (OECD 1994). A simple and neutral system of business taxation and targeted grants better assists small businesses and the economy.

The *Henry Review* observed that small business losses have a greater impact than on business than losses do on other businesses (Henry Report 2009). As Chennells et al found, there is discrimination against investment spending by new or small start up businesses (Chennells et al 2000). Small businesses obtain no reprieve from tax losses until taxable income is generated. Unlike larger firms, with existing profitable business who can claim these losses immediately. Thus, it is contended that tax rules should allow some level of pass-through treatment so that owners can set their business losses against other sources of income. In Australia, individuals operating businesses alone or in partnership, though, can offset business losses against other income (subject to the non-commercial loss rules). These arguments, though, do not apply to businesses operating through companies and trusts and the *Henry Review* found that in 2006-07, Australian small businesses accounted for almost one half of the carried forward losses (Henry Report 2009). The *Henry Review* thus recommended that all companies should be permitted to carry back revenue loss to offset against prior years taxable income with the amount of refund restricted to a company's franking account balance. Given that the recommendation applied to all companies (small and otherwise) this is not considered to be a small business tax concession. Additionally, it is contended that retirement or death might result in the cessation of a business and loss of employment and wealth generation (European Commission, 1994). Tax concessions are needed for small businesses upon the owner's death and where a business is disposed of whilst the owner is alive to keep the business intact by encouraging disposal and succession. There are benefits from inter-generational succession. Though, others found no evidence to support this (Bjuggren & Sund 2002). Research has found that where small family firms (as well as publicly traded firms) employ the eldest male child as CEOs, they become poorly managed (Bloom & Van Reenen 2006; Perez-Gonzalez 2005). Since the SBE CGT concessions are available where the business is not being maintained as a going concern by the person or persons acquiring it, they do not meet the objective of encouraging continuity. Providing reliefs from capital taxes to small businesses seems likely to lead to distortion and demands for further reliefs (Crawford & Freedman 2008).

CONCLUSION

First, having regard to the matter of defining a small business, the *Henry Review* (like the *Ralph Review*) provided little analysis to support its recommended definition of a small business. Whilst defining a small business is problematical, using uniform definitions of 'micro', 'small' and 'medium' businesses would help the examination of the impact of the small business sector and promote more informed policy making. Secondly, as to the question whether small business should receive tax concessions, overall the *Henry Review* proposed to substantially broaden the scope of the small business concessions. As seen by the recommendations to increase the turnover threshold, remove the CGT maximum net asset value test and increase concessions for depreciating assets. In contrast, the *Henry Review* also proposed to abolish two CGT concessions and the ETO concession. These recommendations are inconsistent. Having regard to the various rationales for the concessions, the available evidence suggests that as a general principle, concessions should be employed on a very limited basis (where an overall benefit in simplifying tax laws such that tax revenue and efficiency increase). Direct government grants are a better way of assisting small business as evident in the long standing success of the US Small Business Innovation Research program. The current small business tax concessions creates sets of winners and losers and imposing significant compliance and administration costs as evident in the former STS and current SBE regime. The *Henry Review* could have improved its recommendations by addressing small business tax issues in a separate chapter in its report. Specifically, the review could have explained the basis and provided evidence for its definition of a small business. Additionally, the *Henry Review* could have answered its question, as to whether small business tax concessions are justified, having regard to the available research. The alternative of direct grants should have been examined and detailed.

REFERENCES

- Adam, S. (2008). Capital Gains Tax, in Chote, R., Emmerson, C., Miles, D., & Shaw, J., (eds.), "The IFS Green Budget: January 2008, Commentary 104, *Institute for Fiscal Studies*, London, 226.
- Aghion, P., Blundell, R., Griffith, R., Howitt, P., & Prantl, S. (2004). Entry and Productivity Growth: Evidence from Microlevel Panel Data, *Journal of the European Economic Association* 2, 265–276
- Australian Bureau of Statistics, (2012). Research and Experimental Development, Businesses, Australia, 2010-11, Cat No. 8104.0; Summary of IT Use and Innovation in Australian Business, 2010-11 Cat. No. 8166.0
- Banks, G., (2006). (Chairman), Taskforce on Reducing the Regulatory Burden on Business *Rethinking Regulation* 31 January 2006, <http://www.regulationtaskforce.gov.au/finalreport/> viewed 7 March 2012.
- Birch, D., (1979). The Job Generation Process, MIT Program on Neighborhood and Regional Change, Cambridge, Mass
- Bannock, G., (2005). *The Economics and Management of Small Business: An International Perspective*, London
- Bjuggren, P., & Sund, L., (2002). A Transaction Cost Rationale for Transition of the Firm within the Family, *Small Business Economics*, 19, 123–133.
- Bloom N and Van Reenen J, "Measuring and Explaining Management Practices across Firms and Countries" (2006) London: LSE Research Online.
- Chennells, L., Dilnot, A., & Emmerson, C., (2000). The IFS green budget: January 2000, *Institute for Fiscal Studies commentary*, Vol 80
- Connolly, E., Norman, D., & West, T., (2012). Small Business: An Economic Overview, Reserve Bank of Australia, Small Business Finance Roundtable May 2012
- Crawford, C., & Freedman J., (2008). Small Business Taxation", in *Reforming the Tax System for the 21st Century*, *The Mirrlees Review*, Institute for Fiscal Studies, London
- Davis, S., Haltiwanger, J. & Schuh, S. (1996). 'Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts' *Small Business Economics* 8, 297–315
- Department of Innovation, Industry, Science and Research (DIISR) (2011), Key Statistics Australian Small Business, Canberra.
- De Rugy, V., (2005). Are Small Businesses The Engine of Growth?, American Enterprise Institute Working Paper 123.
- Curran, J., Kitching, J., Abbott, B., & Mills, V. (1993). *Employment and Employment Relations in the Small Service Sector Enterprise—A Report* Kingston University, London
- Disney, R., Haskel, J., & Heden, Y. (2003). Restructuring and Productivity Growth in UK Manufacturing, 113 *The Economic Journal* 666–694
- European Commission, (1994). Commission Recommendation of 7th December 1994 on the Transfer of Small and Medium-sized Enterprises, (94/1069/EC)
- Evans, C. (2003), Studying the Studies: An Overview of Recent Research into Taxation Operating Costs, *Journal of Tax Research* 1, 64–92.
- Gentry, W., (2004), Comment on Small Business and the Tax System, in Aaron H, and Slemrod J (eds) *The Crisis in Tax Administration*, Brookings Institution Press, Washington DC

- Gordon, R. (1998). Can High Personal Tax Rates Encourage Entrepreneurial Activity?, *IMF Staff Papers*, 45-49
- Harrison, B. (1997). *Lean & Mean*, Guilford Press, New York
- Henry, K. (2009). (chairman) Australia's Future Tax System, *Consultation Paper, Discussion paper, Report to the Treasurer*, <http://taxreview.treasury.gov.au> viewed 7 March 2013
- Holtz-Eakin, D. J. (2000). Public Policy Toward Entrepreneurship, *Small Business Economics* 15, 283–291
- Johansson, A., Heady, C., Arnold, J., Brys, B., & Vartia, L. (2008). Tax and Economic Growth, Economics Department Working Paper No. 620, OECD, Paris.
- Keller, M. & Block, F. (2012). Explaining the Transformation in the U.S. Innovation System: The Impact of a Small Government Program, *Socio-Economic Review* 1-28
- OECD (Organisation for Economic Co-operation and Development) (1994). *Taxation and Small Businesses*, Paris
- OECD (1997). *Small Businesses, Job Creation and Growth: Facts, Obstacles and Best Practices*, Paris
- OECD (2010). *SMEs, Entrepreneurship and Innovation*
- Parliamentary Joint Committee on Corporations and Financial Services (2011). 'Access for Small and Medium Business to Finance', Senate Printing Unit, Canberra
- Perez-Gonzalez, F. (2006). Inherited Control and Firm Performance, *American Economic Review*, 96, 1559-1588
- Pope J, "Favourable small business taxation: to what extent is it justified from a tax policy perspective?" (2008) *Journal of Applied Law and Policy* 33.
- Pope, J. (2001). Estimating and Alleviating the Goods and Services Tax Compliance Cost Burden upon Small Business *Revenue Law Journal* 11, 6
- Ralph, J. (1999). (chairman), Review of Business Taxation, *A Tax System Redesigned, More Certain, Equitable and Durable, Report*
- Senate Estimates Committee Hearing, 2009
- Slemrod, J. (2004). Small Business and the Tax System', in Aaron H and Slemrod J (eds), *The Crisis in Tax Administration*, Brookings Institution Press, Washington DC
- Storey, D. (1995). A Symposium on Harrison's "Lean and Mean": A Job Generation Perspective, *Small Business Economics* 7, 337–40

BANK FAILURES IN SOUTH AFRICA “WHERE HAVE WE GONE WRONG”? AN AREA OF CONCERN FOR SOUTH AFRICANS

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ABSTRACT

In general bank failures can trigger off serious consequences in an economy that can lead to financial, economic, social and political ramifications. Banks act as intermediaries who receive money from those people who have surplus funds and make it available to prospective borrowers who might be in need of such funds at a price known as interest. Banks therefore play a very important role in an economy and hence are subjected to a rigid regulatory framework. Despite these regulations many banks still fail to meet their obligations and in the process become insolvent. In fact in South Africa since the 1990's many banks have failed and this in effect raises eyebrows of concern. This paper will therefore look at some of the reasons as to the cause of bank failures in South Africa and whether strategies could be put in place to address this situation.

INTRODUCTION

Banks pivotal role is to take in deposits from its customers and make such funds available for on lending. In this way the funds of net savers of a bank are channeled to borrowers who might be in need of such funds. As a result of this process the bank effectively becomes a debtor of those lending it money and the Banks borrowers in turn become debtors of the bank. The difference between the rates of interest a bank pays to its depositors and the rate at which it lends to its borrowers represent its margin of profits. Therefore in essence the banks functional role could be said to be that of an agent or an intermediary reallocating funds from those in surplus to those in need. Just as a business enterprise whose aim is to make a profit and further maximize its profitability, banks also have the same desire to maximize its profit. Consequently the banks desire to maximize profits could therefore seem to give banks the incentive to increase their capacity to lend money to its customers.

In South Africa the South African Reserve Bank acts as the Central Bank and is responsible for a number of authoritative functions and tasks which lie outside the confines of other banks and financial Institutions. Now despite the stringent regulatory framework which are in place it seems absurd and worrying that many banks in South Africa are still failing to meet their obligations and finally become insolvent. Within the South African Banking scenario since 1990 a number of banks failed in South Africa and hence it seems interesting to examine what could be the core factors that led to such failures and then suggest ways or strategies that could be adopted to avert such failures in the future.

An Overview of the South African banking Industry:

Control of money supply has become crucial in the functioning of any modern economy and this requires a clear defined policy to be in place for the regulations of banking business. This stems from the fact that the bank is entrusted with the care of handling other peoples money and in so doing any dishonourable motive on the part of the bank could seriously and adversely impact on banking business. In South Africa the South African Reserve Bank acts as the Central Bank whose main responsibility is the determination and implementation of monetary policy.

Legislation Protecting Depositors

Section 1 of the Banks act No.94 of 1990 as amended and hereinafter referred to as the 'Act' defines a bank as a public company or a person whose main business entails the acceptance of deposits from the general public for the purposes of carrying on the business of a banking Institutions.

The above definition of a bank clearly indicates that any person who accepts money from the general public in whatever form and lends such funds to the public falls within the sphere of the business of banking. In terms of Section (11) (1) of the Act it is required that the Institution register with the Registrar of Banks to operate as a Bank. Section (11) (2) provides that any organization conducting the business of a bank without registration would be guilty of an offence. Section 12(1) of the Act provides that any person who intends to carry on the business of a banking Institution may apply to the Registrar for permission to establish a bank.

Section 13(2) provides that the Registrar may grant such permission to an applicant if he satisfies him in respect to the following:

- That the business the applicant proposes to conduct is certainly that of a bank.
- That the applicant will conduct the proposed business of a bank as a public company in terms of the Act.
- And that the applicant will be able to establish itself successfully as a bank
- That the applicant will have the financial means to comply as a bank
- That the business of the proposed bank will be conducted in a prudent manner
- That the director or executive officer is a fit and proper person to hold office.
- That the executive officer of such a proposed bank has sufficient experience of the management of the kind of business that it is to conduct.
- That the composition of the Board of Directors of the proposed bank will be appropriate, having regard to the nature and scale of the business that it is intending to conduct.

Section 7 of the Act requires the Banks to provide the Registrar from time to time with any information as may be reasonably required to ascertain whether or not the bank is complying with all rules and its business in a proper manner.

The holding of liquid assets by banks is a safety measure in favour of banks in the event of abnormal withdrawal of cash by depositors and at the same time it serves to protect depositors. Hubbard (2005;35). Section 72(1) of the Act stipulates that a bank shall maintain in the Republic liquid assets amounting to not less than the aggregate of 20% of such different categories of its liabilities as specified by the legislator. Section 10A of the Act ensures that Banks always have adequate liquidity which serves as a second line of defence and hence they are required to maintain a certain amount of minimum reserve balance with the South African Reserve Bank which does not earn any interest. It is normally about 2,5% of the total liabilities of banks. Section 70 of the Act further requires banks to maintain a minimum amount of share capital and reserve funds so as to ensure that they are of an adequate size and solidity. South African Reserve Bank ultimately serves as Lender of Last Resort which Hubbard (2005;314) regards as an important source of credit to which banks could turn to during a panic safeguarding the interest of its depositors.

History of Banks Failure In South Africa

Since 1990 there has been a number of banks that have failed in South Africa and it was a common tendency on the part of The Reserve Bank to come to the rescue of struggling banks however it has now adopted a policy of encouraging other banks to come to the rescue of failing banks. Okeahalam (1998).

- **Alpha Bank** : the failure of this bank was as a result of high level of fraud.
- **Cape Investment Bank**: This bank was also a victim of fraud. In the case of this bank it failed to disclose the significant number of non performing assets in its balance sheet until this was exposed when Prima Bank (which subsequently failed itself) withdrew from a takeover deal . This led to a liquidity problem which caused the bank to fail in the second quarter of 1991.
- **Pretoria Bank** : Pretoria bank had been poorly managed for a period of time before failing in July 1991.Top management believed that merging Pretoria bank with Masterbond which was a participation mortgage bond Company to form a Company called Novabank would strengthen Pretoria Banks balance sheet by providing high yield returns from the mortgage market in which Masterbank operated. However when Masterbank was unable to service its commercial paper and debenture obligation which were the primary source of its funding it collapsed. This caused the proposed joint venture to fail and closed the strategic rescue line of Pretoria bank which then failed.
- **Sechold Bank**: Sechold Bank failed in December 1993 because of liquidity problems brought on after a wholly owned subsidiary Securities Limited lost R180 million in derivative trading positions. This

resulted in a loss of depositor and investor confidence that resulted in significant erosion of the of the Sechold Capital base.

- **Prima bank:** Prima bank failed and was placed into liquidation in the second quarter of 1994. It also had liquidity problems brought on by a large number of non performing loans.
- **African bank:** In the last quarter of 1995 African bank had liquidity problems and was placed under curatorship .During investigation it emerged that poor management and inadequate capital were considered to be the main problems.
- **Community bank:** This was a small bank with black management that also failed due to liquidity problems. Its liquidity problems stemmed from from a very high expense to income ratio which was the result of inefficient management and inadequate returns on investment at branch level.
- **Islamic Bank of South Africa (IBSA):** The Islamic Bank of South Africa also failed in November 1997 with debts of R50 million and R70 million and was under the Registrar of Bank curatorship. It emerged that bad management and improper management systems caused the bank to fail. According to Iqbal and Mirakhor (2011) it was the large amount of insider unsecured lending that had taken place that resulted in the Banks failure.
- **Saambou Bank:** Saambou Bank during September 2002 also came under curatorship when it became apparent that the bank was unable to meet depositors withdrawal demands and also unable to meet its obligations when it was legally bound. Fortunately First Rand bank came to its rescue and bought off the banking operations.

An overall analysis reveals that poor management ,liquidity and fraud seem to have been the prime reasons for banking failure in South Africa.

Way Forward

Many banks failed in South Africa and ofcourse some degree of concern is reasonably warranted so as to determine what should be the way forward so as to eliminate any future run in on banks. According to Abrams and Settle (1992) since banks work within a strict regulatory regime and the fact that such regulatory regime in effect is initiated by the Central bank it stands to reason then that the Central banks decisions need to be scrutinized. In this respect scrutiny by relevant stakeholders such as equity holders, management of banks and depositors play a vital role in determining to what extent Central bank is devising and implementing sufficiently aggressive strategies. Depositors also in scrutinizing the role of the Regulator are in fact making an assessment of the benefits of placing their deposits in different types of banks.

South Africa lacks a deposit insurance scheme which could play a pivotal role in safeguarding the funds of depositors, in the event of there being a run on a bank, for eg.when the Islamic bank of South Africa (IBSA) had failed the Reserve bank agreed to compensate investors to the tune of R50000 per depositor, this had covered 80% of the depositors since the primary depositor base of the Islamic bank was small. Muslim depositors also viewed the IBSA as a Community bank where the depositors had saved money to make the Haj pilgrimage to Mecca. The Reserve Bank solution did compensate most of the depositors fully but did not compensate all the depositors. Okeahalam (1998). South Africa does not have an explicit deposit –insurance scheme (DIS), however during 2000 at the request of the Minister of Finance the Bank Supervision Department was required to participate in a Joint Venture project with National Treasury to look into the requirements necessary to implement the South African Deposit Insurance Scheme (SADIS).Currently a work group has been established to research the issues and to come up with proposals on the establishment of SADIS. Therefore in the main, proposals on SADIS are currently on the map to serve the purposes and interests of South Africa. (Annual Report of the South African Reserve Bank Supervision Department: 2005).

The South African Reserve Bank acts as South Africas Central bank responsible for frmulating South Africas monetary policy and is largely responsible for its implementation. Its powers and functions are governed by the South African Reserve bank Act 90 of 1989. In terms of its Lender of last resort activities the Bank may in certain circumstances provide liquidity to those banks experiencing liquidity problems. It is therefore crucial to examine under what circumstances the Reserve Bank grants Lender of last Resort assistance to banks and examine the powers of those officials who exercise their influence in either granting or declining Lender of Last Resort lifelines. Okeahalam (1998) also stresses the point that there is a need for greater emphasis to be placed on revising the legislation so as to limit the discretionary power of officials on the part of the Reserve bank and the Registrar of Bank. In fact he advises that officials discretionary powers should be only retained as far as marginal decisions are concerned however their powers should be greatly

circumscribed with regard to major decisions such as the granting or not granting of Lender of last Resort assistance. There is therefore a need to revisit the statutes governing prudential regulations.

Well established Banks should render a more supportive and regulatory role to young banks which are in their infant stage of development and which might be experiencing liquidity problems. Vaish (1995;402) cites this strategy as moral suasion and publicity. As regards publicity Vaish submits that Central bank should frequently publish economic facts relating to both the states of the money market and the general state of the economy. This could lead to educational enrichment that could also benefit Reserve Bank officials who would in turn be able to keep abreast with new developments and render assistance to those banks who may be experiencing problems

CONCLUSION

Banks play a very important role in any modern economy acting as an agent or intermediary reallocating funds from those in surplus to those in need. Since they act typically as business enterprise they also aim at maximizing their profitability and hence are subject to rigid regulatory framework. The South African Reserve Bank acts as the Central Bank which exercises control over banking business. Many banks, in South Africa, since 1990 have failed despite the strict regulatory framework within which they have to operate hence the notion that the Reserve bank and Registrar of bank have failed in some aspects of bank supervision. This resultantly calls for a review of the banking legislation with a view to implementing strategies that would in future alleviate possible bank failures. One very relevant aspect is the idea of implementing a deposit Insurance scheme in South Africa

REFERENCES

- Abrams,B.A. and Settle R.F. 1992 “*What can Regulators Regulate? The case of Bank Entry.*”
- AfricanJournal of Political Science.Vol.3.No.2.29-48.
- Annual Report of The South African Reserve Bank Supervision Department . 2005.
- Banks Act No.94 of 1990.
- Hubbard,R.G. 2002. *Money,the Financial System, and the Economy.*4th edition.London.Pearson Addison Wesley.
- Iqbal and Mirakhor 2011 *An Introduction to Islamic finance.* 2nd edition.Singapore. John Wiley
- Journal of Money,Credit and Banking.Vol.24,511-518.
- Okeahalam, C.C. 1998 *The Political Economy of Bank Failure and Supervision in the Republic of South Africa.*
- Vaish,M.C. 1995.. *Monetary Theory.* 14th edition. New Delhi. Wiswa Prakashan.

THE IMPACT OF PRE-PAID WATER METERS ON THE RIGHT OF ACCESS TO WATER IN SOUTH AFRICA, WITH REFERENCE TO LIMPOPO PROVINCE : A CONSTITUTIONAL PERSPECTIVE

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ABSTRACT

Many people in South Africa still live without access to water at all, even though such has been guaranteed as a fundamental right in the South African Constitution. This paper demonstrates the challenges faced by the courts in the adjudication of cases relating to the right of access to water and the misunderstanding of the people at the ground, as well as the municipalities or services providers and the courts, in the interpretation of right of access to water and sufficient water. Although the issue in question is of nation interest, this paper uses the Limpopo Province, which is one of the nine provinces of South Africa, as a practical demonstration of the dire shortage of water in South Africa as a whole, and how such could be interpreted as the violation of International instruments that South Africa is a member state to.

INTRODUCTION

Water forms part of the second generation rights, together with other rights like the right to Food, Housing, Social Security, etc. The Interim Constitution of South Africa contained first generation rights and also second generation rights, but was not clear about the justiciability of the latter. Fortunately the final Constitution contains both first, second and third generation rights. Both this rights are constitutionally justiciable. Until recently, South African water law has developed inappropriately for the situation of water scarcity. Moreover, access to water rights has been skewed heavily to the detriment of the majority of the population. With the onset of democracy, the water law was reformed to address both the question of equitable access and to provide for the government to exercise management control over water resources.

THE LIMPOPO PROVINCE

Limpopo is a province of South Africa and it is situated in the North-Eastern part of the country. It shares borders with Botswana, Zimbabwe and Mozambique. The Limpopo province covers an area of 123 000sqkm, which accounts for 10.2% of the total land area in South Africa, and has an estimated population of 5.4 million people. Moreover, it is considered to be one of the poorest provinces in South Africa with a rural population of 89% and relatively high illiteracy and unemployment rates. The people rely heavily on agriculture for household food security. The province has a variable summer rainfall and is rich in bushveld. However, recently, the Limpopo province has been subjected to frequent droughts, which have had a bearing on agricultural production. At some stage the Giyani district was declared a disaster area, due to serious drought as a result of lack of rainfall and basic water supply.

A household may be enabled to gain a sustainable livelihood through ownership of land, livestock or trees; rights to grazing, fishing, hunting or gathering; and through stable employment with adequate remuneration or through varied repertoires of activities. It should include both social and economic dimensions of existence. However, several factors threaten sustainable livelihoods in Limpopo Province. Drought and unemployment have been noted as factors threatening the livelihoods in Limpopo province. Drought is a normal recurring event that affects the livelihood of communities. A serious drought or a series of consecutive droughts can be a disaster-triggering agent that exacerbates social and economic problems, and reduces the overall livelihood security of a society, as been the case in Limpopo province.

RESTRAINING DEVELOPMENT

The shortage and lack of water supply may lead to a halt and abrupt of various planned development, including physical, social and economic development. Buyelwa Sonjica stated that a shortage of water was fast becoming a restraint on development, as follows: “We have seen in many parts of the country where development had to be delayed because of the lack of water and associated infrastructure, and Limpopo has been no exception. Given the dire need for development and economic growth in our country, we cannot afford to let this happen.”

Many rural areas continue to lack basic infrastructure such as roads, water and electricity supply. This lack of infrastructure entrenches the problems of chronic poverty and limits the potential of communities to sustain economic growth, rural livelihoods and social development. Efforts to extend free basic services to all people are slowest to reach the rural areas and farm-dwellers, even while the majorities have access to free basic services in the urban areas. Moreover, access to government services such as education and health care are the weakest in rural areas.

THE HUMAN RIGHTS LAW PERSPECTIVE

Human rights are an inherent entitlement to every person as a consequence of being human, and are founded on respect for the dignity and worth of each person. The right to sufficient water, enshrined in South Africa’s Constitution, cannot be denied. The government is legally bound to comply with this constitutional mandate, and, to this end, has enacted policies, legislation, strategies and institutions to manage water resources and deliver water services.

Despite this, the implications and obligations of this relatively new constitutional right are not yet fully understood by the spectrum of stakeholders, ranging from institutions that have custody over water resources, to individuals entitled to water. This is clearly reflected in the many instances of deficient water security witnessed at grassroots level and the severe gaps that exist between the constitutional right to water and the current practice and understanding of this concept.

The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights. The right to water clearly falls within the category of guarantees essential for securing an adequate standard of living, particularly since it is one of the most fundamental conditions for survival. The right should also be seen in conjunction with other rights enshrined in the International Bill of Human Rights, foremost amongst them the right to life and human dignity. For this reason the elements of the right to water must be adequate for human dignity, life and health.

The Supreme Court of India in the case of *Francis Coralie Mullin* held that:

“life cannot be restricted to mere animal existence or physical survival. The right to life means the right to live with dignity and all that goes with it, including the basic necessities of life such as adequate nutrition, clothing, shelter and facilities for reading, writing and expressing oneself”.

THE SOUTH AFRICAN PERSPECTIVE THE CONSTITUTION

The rights to Health Care, Food, Water and Social Security

The Constitution provides that everyone has the right to have access to sufficient food and *water*. It further provides that the state must take reasonable legislative and other measures, with its available resources, to achieve the progressive realization of each of these rights.

The right to Equality

The Constitution provides that all people are equal, and the state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, ethnic or social origin, etc.

The Right to Just Administrative Action

The Constitution provides that everyone has the right to just administrative action that is lawful, reasonable and procedurally fair. It further states that national legislation must be enacted to give effect to these rights.

The Limitation Clause

It must be noted that a constitutional provisions always trump other legislation unless it can be shown to be a limitation of the right that is “reasonable and justifiable in an open and democratic society based on human dignity, equality and freedom”. The disconnection of an existing water supply has been held to be a limitation of the right of access to water. In *Residents of Bon Vista Mansions v Southern Metropolitan Local Council*, the council disconnected a water supply to the residents of Bon Vista Mansions. The disconnection was purportedly authorised by the Water Services Act. The Act permits disconnection for non-payment of services charges, but not in circumstances that will result in a person being denied access to basic water services, if that person shows that they are unable to pay for the services. In an application for interim interdict, the court held that the municipality had not discharged its constitutional and statutory obligations to justify the disconnection and ordered interim reinstatement of the service. The court went on to held that the duty of the state to respect the rights in Bill of Rights meant that if a municipality disconnected a domestic water supply it was limiting the constitutional right of access to water and the limitation had to be justified.

NATIONAL LEGISLATIONS

The Promotion of Administration Justice Act

The PAJA is a national statute passed in accordance with section 33 of the Constitution. It provides in section 3(2) (b) that the requirements for procedural fairness, include adequate notice of proposed action, (ii) reasonable opportunity to make representations.

The Water Service Act

It is significant to note that this Act operate in tandem with the National Water Act. The objects this Act includes, inter alia:

- The right to access to basic water supply and the right to basic sanitation necessary to secure sufficient water and an environment not harmful to human health or well-being
- The setting of national standards for tariffs in respect of water services.

The “Basic water supply” refers to the prescribed minimum standard of water supply to households, including informal households, to support life and personal hygiene. One may argue that the amount of water to be sufficient in homesteads of Limpopo province may have to be different from other provinces which are not affected by drought. This Act further gives effect to section 27 of the Constitution by providing that everyone has the right of access to basic water supply and basic sanitation. It also provides that the Procedures for the limitation or discontinuation of water services must provide for reasonable notice of intention to limit or discontinue water services and for an opportunity to make representations.

The National Water Act

The purpose of this Act, which also applies in Limpopo province, is to ensure that the nation’s water resources are used, protected, developed, conserved and managed in such a manner that it takes into account various factors, inter alia:

- Meeting the basic human needs of present and future generations
- Promoting equitable access to water
- Redressing the results of past racial and gender discrimination
- Facilitating social and economic development
- Meeting international obligations

PRETORIA CITY COUNCIL V WALKER

The council had jurisdiction over the formerly exclusively white areas of Pretoria and over the townships of Attredgville and Mamelodi. The residents of old Pretoria were mostly white and those of the two town ships were mostly black. In old Pretoria ratepayers paid consumption-based tariffs for the water and electricity services supplied by the Council. Actual consumption was measured by meters placed in each property. In Attredgville and Mamelodi users paid a flat rate per household, no matter how much water or electricity they consumed. Walker, a resident of old Pretoria, complained that the flat rate in Mamelodi and Attredgville was lower than the metered rate and this therefore meant that the residents of old Pretoria subsidised those of the two townships for water and electricity.

The majority of the Constitutional Court considered the actions of the Council to be indirect discrimination on the listed grounds of race. However, the majority went on hold that the flat rate of water

and cross-subsidisation was not unfair discrimination. The court first took into account that Walker was white, and therefore belonged to a group that had not been disadvantaged by the racial policies and practices of the past. In an economic sense, his group was neither disadvantaged nor vulnerable, having been benefited by the discrimination in the past.

MAZIBUKO & NO v CITY OF JOHANNESBURG AND OTHERS

The applicants challenged, firstly, the City of Johannesburg's Free Basic Water policy in terms of which 6 kilolitres of water are provided monthly for free to all households in Johannesburg and, secondly, the lawfulness of the installation of pre-paid water meters in Phiri. The three respondents are the City of Johannesburg (the City); Johannesburg Water and the National Minister for Water Affairs and Forestry. The applicants succeeded in the South Gauteng High Court. The Court found that the installation of pre-paid water meters in Phiri was unlawful and unfair. It also held that the City's Free Basic Water policy was unreasonable and therefore unlawful. It ruled that the City should provide 50 litres of free basic water daily to the applicants and "similarly placed" residents of Phiri. On appeal, the Supreme Court of Appeal varied this order. The Supreme Court of Appeal held that 42 litres of water per day would be "sufficient water" within the meaning of the Constitution, and directed the City to reformulate its policy in the light of this conclusion.

The Constitutional Court held that the obligation placed on government by the Constitution is an obligation to take reasonable legislative and other measures to seek the progressive realisation of the right. The Court notes that it is implicit in the concept of progressive realisation that it will take time before everyone has access to sufficient water. The Court concluded, in contrast to the High Court and the Supreme Court of Appeal, that it is not appropriate for a court to give a quantified content to what constitutes "sufficient water" because this is a matter best addressed in the first place by the government, the 3 national government has adopted regulations which stipulate that a basic water supply constitute 25 litres per person daily; or 6 kilolitres per household monthly. The Court concluded that it cannot be said it is unreasonable for the city not to have supplied more, particularly given that, even on the applicants' case, 80% of the household in the City will receive adequate water under the present policy. The court noted that 100 000 household within Johannesburg still lack access to the most basic water supply, that is a tap within 200m of their households. The Court concluded that the installation of the meters was neither unfair nor discriminatory. The Court upheld the appeal by the City and Johannesburg Water and the Minister. The orders of the High Court and Supreme Court of Appeal were, therefore, set aside.

INTERNATIONAL LAW PERSPECTIVE

There are few but important international instrument that make reference to the right to water or of access to water. It is important to note that some of those instruments just have indirect reference to the right water. Some of those important instruments that impact on South Africa are the following:

THE UNIVERSAL DECLARATION OF HUMAN RIGHTS

The Universal Declaration of Human Rights guarantees to all individuals a standard of living adequate for the health and wellbeing, including food, clothing, housing, etc. Since the right to water is one of the most fundamental conditions for survival, it implies that, the right to water clearly falls within the category of guarantees essential for securing an adequate standard of living. The right to water is also inextricably related to the right to the highest attainable standard of health and the rights to adequate housing and adequate food.

THE INTERNATIONAL COVENANT ON ECONOMIC, SOCIAL & CULTURAL RIGHTS (ICESCR)

The International Covenant on Economic, Social and Cultural Rights guarantees and adequate standard of living, including adequate food, clothing and housing, and to the continuous improvement of living

conditions. It further guarantees the highest attainable standard of physical and mental health. One may argue that has the same as discussed above in UDHR , and as such covers the right to water.

THE AFRICAN CHARTER ON HUMAN & PEOPLE'S RIGHT

The African Charter on Human People 's Right is literally silent on the right to water ,but one may argue that the provision to free dispose of natural resources or generally satisfactory environment favorable to their development includes the right to water.

THE COVENANT ON ELIMINATION ON ALL FORMS OF DISCRIMINATION AGAINST WOMEN

The Covenant on Elimination on all forms Discrimination against Women enshrines the right to adequate living conditions, particularly in the relation to housing, sanitation, electricity and water supply.

THE UNITED NATIONS CHARTER ON THE RIGHTS OF CHILDREN

The United Nations Charter on the Children provides for the right to combat disease and malnutrition through the provision of adequate nutrition foods and clean drinking- water.

THE AFRICAN CHARTER ON THE RIGHTS AND WELFARE OF THE CHILD

The African Charter on the Rights and Welfare of the Child enshrines the "provision of adequate nutrition and safe drinking water.

ACCESS TO WATER

Access manner in which the right has been framed makes it clear that the state is not obliged to provide every inhabitant of South Africa with a free water supply. The state's duty towards those individuals who have the ability to pay for water services entails that the state must create the condition and opportunity to ensure that those individuals have 'access' to sufficient water. The right of "access" to water entails economic and physical access.

The committee on ESCR has with regard to economic access commented that water, and water facilities and services, must be affordable for all and state parties must adopt. The necessary means that may include, inter alia;

- Use of a range of appropriate low-cost techniques and technologies;
- Appropriate pricing policies such as free or low-cost water; and
- Income supplement any payment for water services has to be based on the principle of equality, ensuring that these services, whether privately or publicly provided, are affordable for all, including socially disadvantaged groups. Equality demands that poorer households should not be disproportionately burdened with water expenses as compared to richer households.

Regarding physical access, the committee stated that the water must be within the safe and physical reach of everyone, meaning within or in the immediate vicinity, of each household, educational institution and workplace. Special attention should also be paid to accessing water. The conditions for access can be created by, for example:

- Subsidizing existing water services or ensuring that the water service are affordable to poverty-stricken South African inhabitants
- Ensuring that water resources are not monopolized by powerful groups; and
- Ensuring an equitable allocation of water'

SUFFICIENCY OF WATER

In terms of the Water Services Act, everyone has a right of access to the prescribed minimum standard of water supply services necessary for the reliable supply of a sufficient quantity of water to households support life and personal hygiene. Regulation 3 of the June 2001 regulations under the Water Services Act provides in essence that the minimum standard for basic water supply is a minimum quantity of potable water of 25 litres per person per day or 6 kilolitres per household per month.

Concerning the above statement, Jaap de Visser argues that “For the urban poor who are used to relatively high levels of water usage, 6 kilolitres of free Water for each household per month will not be adequate. For a household of 8 people, 6 kilolitres of water amounts to two flushes of a toilet per person per day and will therefore be completely inadequate”. Peter Gleick argues that a minimum amount of water to ensure a basic standard of living is 50 litres per person per day (lpppd), broken down as follows:

- Minimum for drinking : 5lpppd
- Basic sanitation : 20lpppd
- Basic bathing : 15lpppd
- Basic food preparation : 10lpppd

CONCLUSION

It is logical to conclude that the installation of pre-paid water meters goes to limit the right of access to water, as was the argument in Mazibuko’s case. Although it limits the said right, it is allowed in terms of national legislation and it is justifiable in terms of section 36 of the Constitution. International law has incorporated the right to water in several instruments, and South Africa has in line with international instruments enshrined the water in its Constitution and national legislation. The above mentioned instruments have all enshrined either directly or indirectly, the right of to water. South Africa is a member state to all these instruments, as it has signed and ratified many of them. The consequences of being a member state to these instruments is that a country is obliged and bound to comply with them, and if they fail to do so, there are penalties or sanctions that be imposed on the said country.

Beside these international, Constitutional and national guarantee of the right of access water, residents of South Africa, particularly Limpopo residents, still experiences serious shortage of water, and consequently affect, inter alia, they right to dignity, life, adequate standard of living, improvement of living conditions, freely dispose of natural resources, sanitation, water supply and safe drinking water.

REFERENCES

- De Waal J, Bill of Rights Handbook, fifth edition, 2005
- De Visser J, The free basic water supply policy: how effective is it in realising the right?, 2002, ESR Review 3
- Francis Coralie Mullin v The Administrator, Union Territory of Delhi (1981) 2 SCR 516
- Gleick P, Basic water Requirements for Human Activities: Meeting Basic Needs, Water International 21, 1996
- Government of RSA v Grootboom 2001 (1) SA 46 (CC)
- Harksen v Lane NO 1998 (1) SA 300 (CC)
- Kidd M, Environmental Law, 2008, Juta
- Mazibuko and Others v City of Johannesburg and Others [2009] ZACC 28, judgement delivered on 8 October 2009
- Pretoria City Council v Walker 1998 (2) SA 363 (CC)
- Residents of Bon Vista Mansions v Southern Metropolitan Local Council 2002 (6) BCLR 625 (W)

South African Constitution Act 108 of 1996

South African Constitution Act 200 of 1993

Sonjica B, Minister of Environmental affairs, mirror newspaper, September 2010

The International Covenant on Economic, Social & Cultural Rights

The African Charter on Human & People's Rights

The Covenant on Elimination on all forms of Discrimination against Women

The United Nations Charter on the Rights of the Children

The African Charter on the Rights and Welfare of the Child

The Promotion of Administrative Justice Act 3 of 2002

The Water Service Act 108 of 1997

The National Water Act 36 of 1998

The Universal Declaration of Human Rights

The Water Research Commission, Understanding and Intergrating human rights-based approaches, April 2008

THE CONSTITUTIONAL ANALYSIS OF RICA ON THE RIGHT TO PRIVACY & SECURITY OF PERSONS

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ABSTRACT

This study scrutinises the constitutionality of the interception of citizen's private calls and telecommunication-related activities by the government as provided for in the Regulation of Interception of Communication and Provision of Communication-Related Information Amendment Act (hereafter called RICA or the Act). The argument is based mainly on two constitutional and fundamental rights, namely, the right to privacy and security and safety of person. It argues that the said Act, violates and infringes upon the right to privacy and security and safety of person as enshrined in the South African Constitution of 1996, and such may not pass the test of the Constitution. A comparison with the United States of America is also undertaken, as it has similar legislation.

INTRODUCTION

It must be noted from the onset that South Africa is a democratic and constitutional country. The Constitution of South Africa is regarded as one of the most liberal constitutions in the world. South Africa has recently passed a law called the RICA. The Act came as an amendment of the Regulation of Interception of Communication and Provision of Communications-Related Information Act (hereafter called the principal Act). RICA targets to amend the principal Act, by the insertion of certain new definitions and the amendment of certain definitions; to provide for registration of cellular phones and SIM-cards; to further regulate offences and penalties; and to provide for matters connected therewith. RICA gives the government a passport to tap or intercept private calls or violate the right to privacy. Interception connotes interference, obstruction, and stoppage of flow, seizure, and grabbing, among other negative processes. Communication involves the imparting or exchange of information, ideas, or feelings. This can be done via verbal, physical, electronic, written, telephonic, or any other available channels⁶.

This study proceeds from the premises that South Africa is a free and democratic society and the preamble of the Constitution states that the Constitution lays the foundations for a democratic and open society in which government is based on the will of people. The impetus behind the war of liberation was the quest for freedom, democracy and other rights contained in the Bill of Rights, for all South Africans. In the first place, the reigning government came to power in 1994, via a democratic process. The government is in power on claims that it was democratically elected into office, by free citizens, and there is less than four months after the people voted the new government in office. After all, is it not freedom and democracy the essence of the annual freedom day celebrations that all South Africans celebrate? Indeed, it has been proven in many countries that the governance of people in almost all societies is best optimized under a democratic configuration. It is also true for many that the potential of an individual or a society, best matures into reality, where freedom prevails.

Section 14 (d) entrenches the right of people "not to have the privacy of their communications infringed". The right to privacy is one of the fundamental rights enshrined in the Constitution and also defines the freedom and democracy of the citizens of South Africa. The Interception and Monitoring Prohibition Act also gave effect to this right. However, infringement of the right is regulated and safeguarded by way of prior judicial authorization. RICA has a negative impact on the societies' right to privacy for it allows authorities to intercept citizens' private calls. The government, colloquially, is encouraging its officials to obtain evidence unconstitutionally. Unconstitutionally obtained evidence is inadmissible.

The subject of this analysis, constitutionality, is one of those important factors that are fundamental to the sustenance of a democratic society. In a democratic society, decisions, actions, plans, operations and laws, all have to be constitutional. Section 35(5) of the Constitution provides that, "Evidence obtained in a manner that violates any right in the Bill of Rights must be excluded."

Constitutionality refers to the extent or degree to which a particular statutory or administrative provision is consistent with the Constitution. This concept should be differentiated from constitutionalism, which means that, statutory, administrative and other forms of provisions must be crafted in compliance with the basic principles, spirit or system of governance in accord with widely accepted characteristics of a good constitution. Hence, legislation might be Constitutional but at the same time be contrary to the concept of constitutionalism. In the South African context, an instrument, provision or decree is constitutional only if it is consistent with the Constitution of South Africa of 1996. Section 2 of the Constitution establishes the supremacy of the Constitution and it also establishes the test for Constitutionality upon all South African laws. However, the purpose of the legislation on scrutiny must also be considered. RICA was enacted to regulate the interception and monitoring of communications by state officials for the purpose of gathering evidence during the investigation of a crime, or in the interest of maintaining justice, public health and safety, national security and the likes. The Act also improvises for the registration of cell phone SIM-cards and regulates offences and penalties available for breach of the provisions of the Act. RICA further provides that interception and provision of information may only take place once a direction has been issued by a judge or magistrate in terms of the Act.

THE SOUTH AFRICAN LAW PERSPECTIVE

The South African position is in these study tackled from the perspective of two conflicting rights, namely, the right to privacy and right to safety and security of person. The two rights are separately discussed below.

THE RIGHT TO SAFETY AND SECURITY

South Africa is now a Constitutional State where certain democratic principles determine the actions of the government and its citizens. South Africans have reached the point where they are fed up with the crime situation in the country. Everybody wants to live in a safe and secure society where peace and harmony prevail. This state of being will only be achieved if there is law and order in that specific society.

The Government must create the necessary structures which are responsible for the creation and maintaining of order in society. The Criminal Justice System refers to that components or governmental departments which are responsible for the execution and the enforcing of laws. The laws are promulgated by Parliament. The police must execute the law. This is done by means of proactive (preventative) measures to ensure that citizens obey the law. If citizens fail to obey the law and cause disorder, it is expected from the police to restore that order by investigating the case. Once the case has been investigated, it is the duty of the court to speak the law. In other words, the court must determine the guilt or innocence of the alleged offender. If the court convicts the offender, it is the responsibility of the correctional services to comply with the decision of the court (in other words to ensure that the prisoner will serve the sentence imposed by the court.

The parliament thus, by enacting RICA, enables the government to exercise the right to safety and security of the society by intercepting their private calls in a mission to curb telecommunication related crimes. RICA was enacted to regulate the interception and monitoring of communications by state officials for the purpose of gathering evidence during the investigation of a crime, or in the interest of maintaining justice, public health and safety, national security and the likes. The Act also improvises for the registration of cell phone SIM-cards and regulates offences and penalties available for breach of the provisions of the Act. RICA further provides that interception and provision of information may only take place once a direction has been issued by a judge or magistrate in terms of Act.

THE RIGHT TO PRIVACY

The Constitution of the Republic of South Africa of 1996 protects privacy in section 14 which states that, "everyone has the right to privacy, which includes the right not to have- (a) their person and home searched; (b) their property searched; (c) their possession seized; or (d) the privacy of their communications infringed."

It is generally accepted that the concept of privacy is difficult to define because it is vague and evanescent, often meaning strikingly different things to different people. The law should nevertheless not shrink from conceptual clarity about this personal interest. It is at this point, where jurisprudence becomes relevant and important, since it is the task of jurisprudence precisely to describe those interests of personality that the law protects in order to render them dogmatically and practically manageable, and in this way to bring legal certainty. From this it is clear that the law should never ignore the individual nature of the different interest of personality.

In order to define the concept of privacy, it is necessary to understand that every personality interest has a pre-legal existence in factual reality. Since by nature a person has a fundamental interest in particular facets of his personality (such as his body, good name, privacy, dignity, etc), these interest exist autonomously de facto, independently of their recognition de iure. Thus the law does not create individual interests of personality, but recognizes and protects such interests in order to promote justice.

Neethling defined privacy as a condition of human life characterized by seclusion from the public and publicity. This embraces all those personal facts which the person concerned has himself determined to be excluded from the knowledge of outsiders and in respect of which he has the will that they be kept private. In *Bernstein v Bester*, Ackerman J viewed that, privacy relates only to the right to privacy does not relate solely to the individual within his intimate space, but is also retained in the social capacities in which people act.

THE CONCEPT OF REASONABLENESS

The reference to constitutionality of RICA makes it absolutely necessary to also deal with the concept of reasonableness. That is to say, relevant things must be ‘reasonable’ in a democratic society. Rautenbach and Malherbe points out that a balance must exist between the purpose of the limitation and limitation itself. This can be assured by identifying the reasonableness of the purpose of the limitation and the limitation itself. This issue will also lead to an inquiry of the effectiveness of the provisions of the Act. The Chief Executive Officer of Vodacom, Allan Knott-Graig questioned various issues upon the amendment of the principal Act and ones of the issues include the difficulty in registering “15 million to 20 million South Africans who simply do not have residential address”. The question arises as to the reasonableness of this Act.

THE LIMITATION OF RIGHTS

The rights in the South African Constitution are not absolute, and can be limited in terms of the limitation clause, contained in section 36 thereof. If the court determines that a law or the conduct of the respondent impairs a fundamental right, it must then consider whether the infringement is a justifiable limitation of the right in question. Not all laws or conducts that infringe fundamental rights are unconstitutional. In *Christian Education South Africa v Minister of Education* the Constitutional court assumed in favour of the applicants that their religious rights were violated and then proceeded to hold that the violation was justified in terms of the criteria laid down in section 36 of the Constitution. These limitations have to be subjected to the reasonableness test.

Section 36 of the Constitution provides that, the rights in the Bill of Rights may be limited only in terms of law of general application to the extent that the limitation is reasonable and justified in an open and democratic society based on human dignity, equality and freedom, taking into consideration relevant factors including, the nature of the right, the importance of the purpose of the limitation, the nature and extent of the limitation, the relation between the limitation and its purpose and less restrictive means to achieve the purpose.

The application of the limitation clause involves a process, described in *S v Makwanyane and another* as “the weighing up of competing values and ultimately as assessment based on proportionality which calls for the balancing of different interests.” In *National Coalition for Gay and Lesbian Equality and Another v Minister of Justice and Others* it was observed that relevant consideration in the balancing process are now expressly stated in section 36 (1) in the 1996 Constitution to include those itemised in paragraphs (a) to (e) thereof.

JUSTIFICATION OF THE RIGHT TO PRIVACY

The right to safety and security of the people as provided by RICA had failed its course, it had been averted by the failure of principal Act that more problems had been created and putting the security of the citizens' at stake. Since 2002, where the principal Act comes to being, security is still a nagging issue. The impact of RICA had stretched its wings and threatens the privacy of employee's in the workplace. The state had to employ other forms of remedies or other legislation to provide security to its citizens' which does not infringe their right to privacy.

Bogaert and Knapp submit that, privacy is not in itself not only good but it is related to ethics in that it concerns the casual relationship between one's concept of 'being in control of their own lives' or their autonomy. When aspects of an individual's life are open to public scrutiny, this may imply a devaluing of one's autonomy."

COMPARISON WITH THE UNITED STATES OF AMERICA

In the thorough analysis of the of the legal position of the United States of America (hereafter USA) with regard to similar laws and rights, it will be realised that the U.S.A. has its own route in dealing with the right to privacy visa-vis right to state security in relation to the constitutionality of the citizen. The Analysis focuses on comparing the various features of the interception of Communications in South Africa and the U.S.A. The comparison is made with reference to the South Africa's RICA, which is under scrutiny in this study.

THE RIGHT TO PRIVACY

The concept of privacy in the USA has developed to such a degree that it now embraces not merely the right to seclusion but the right to individual autonomy or free choice- the right to make certain personal decisions relation to marriage, procreation, contraception, family relationships, child-rearing, education, communications and even death (the right to die with dignity). Unlike in South Africa, the right to privacy in USA is not specifically mentioned in the USA Constitution or its Amendments and the protection of privacy was, initially at least, a common law one.

However, more recently, as the right had been interpreted by courts to comer not merely freedom to decide what information about oneself can be revealed to a wider public but also to include freedom to make certain intimate personal decisions, some constitutional backing has been sought. In USA, the same rules apply to privacy as to defamation that is; private individuals can recover for invasions of privacy when newspapers negligently print false statements about them, in the context of discussing an issue of general public interest. Burchell point out that, the right of privacy, which is recognised in the USA and South Africa, has not yet received recognition as a general right in English law.

THE INTERCEPTION OF COMMUNICATIONS

he interception of communications in the USA is mainly regulated by three statutes. Title III of the Omnibus Safe Streets and Crime Control Act of 1968 regulates interception of the contents of communications for law enforcement purposes. The Foreign Intelligence Surveillance Act of 1978 regulates interception of the contents of communications of foreign powers and their agents with the US. The Pen Registers and Trace Devices chapter of Title 18 regulate interception of non-content information of communications. Interception orders the three statutes are all issued by Judges.

Interception of call in USA is also governed by the Communications Assistance for Law Enforcement Act (hereafter CALEA) which was enacted to make clear a telecommunications carrier's duty to cooperate in the interception of communications for Law Enforcement purposes, and for other purposes. CALEA's purpose is to enhance the ability of law enforcement and intelligence agencies to conduct electronic surveillance by requiring that telecommunications carriers and manufacturers of telecommunications equipment modify and design their equipment, facilities, and services to ensure that they have built-in surveillance capabilities, allowing federal agencies to monitor all telephone, broadband internet and other communication avenues. This is similar to the provisions of RICA in South Africa but it differs in light of registration of SIM-Cards. The reason for adopting CALEA was the FBI's worry that increasing use of digital telephone exchange switches would make tapping phones at the phone company's central office harder and slower to execute, or in some cases impossible.

CONCLUSION

There can be no peace and order in any community when individual rights can be exercised without limitation at all times. In terms of a Bill of Rights it is possible to limit rights for the protection of some public interest or the rights of others. Not every right in the Bill of Rights is absolute. The limitation of the right to privacy by RICA it may be justified, because the Act serves some public interests by protecting a corresponding right to state security and it had to be understood that individuals' rights or interests need to be balanced with those of society at large.

There is a need for constitutional review of RICA. Section 172 of the Constitution provides for courts, within its powers, to decide constitutional matters. There is need for further amendment of the Act in question. The amendment will be required to nullify all the irregularities associated with the Act so that the spirit, purport and object of the Bill of Rights is achieved. Section 2 of the Constitution of the Republic of South Africa provides for the supremacy of the Constitution and it declares that, "law and conduct inconsistent with it (the Constitution) is invalid, and the obligations imposed by it must be fulfilled." Therefore, the RICA as passed by parliament and been applied as it is, should be seen as to some extent violating the right to privacy and security of person as guaranteed in the Constitution.

REFERENCES

- Burchell, Personality Rights and Freedom of Expression: The Modern Actio Injuriarum, first edition, 1998
- Botha, Statutory Interpretation: An Introduction for Students, fourth edition, 2005
- Communications Assistance for Law Enforcement Act of 1994
- Crime Control Act of 1968
- De Waal, The Bill of Rights Handbook, fourth edition, 2001
- Foreign Intelligence Surveillance Act of 1978
- Neethling, The Concept of Privacy in South African Law, 2005 SALJ
- Rautenbach, The conduct and interest protected by the right to privacy in section 14 of the Constitution, 2001 TSAR
- Rautenbach and Malherbe, Constitutional Law, fourth edition, 2003
- Regulation of Interception of Communication and Provision of Communication-Related Information Amendment Act 48 of 2008
- Regulation of Interception of Communication and Provision of Communications-Related Information Act 70 of 2002
- Schwikkard, Principles of Evidence, second edition, 2002
- Steenkamp, South African Constitutional Law: The Bill of Rights, 2007
- Tarrant, Why RICA will fail?, Personal Finance Newsletter, 2009
- The South African Constitution Act 108 of 1996
- Van Vuuren, The Citizens and the Law: Certain Rights and Limitations, 2000, CRISA 1
- S v Makwanyane and Another 1995 3 SA 391 (CC)
- National Coalition for Gay and Lesbian Equality and Another v Minister of Justice and Others 1998 12 BCLR 1517 (CC)

MARKETING PROPOSAL FOR MICRO-ENTERPRISES

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ABSTRACT

This article aims to present the main marketing concepts applied by micro-enterprises within a brief contextualization of a marketing plan. The development and theoretical evolution have stemmed from the bibliographical research as well as field research and observational studies by the authors of the article. The goal is not to exhaust the topic or to construct a Marketing Plan, but rather to contribute to the discussion, learning and use of a marketing mix in the segment of micro-enterprises in a more assertive manner. It was concluded that there is no doubt as to the importance of micro-enterprises for any country. Their contribution lies mainly in the economic and social insertion. It should be noted that micro-enterprises are greatly responsible for job generation in our country, denoting their prominent social and ecological perspective. More than a transient way of earning money, the reality of micro-enterprises should be considered as a social and economic phenomenon able of generate regional and, consequently, global growth.

INTRODUCTION

Companies offer important contributions to society. Under an economic point of view, they contribute to the generation of income and, consequently, to the development which it unfolds. Under a social point of view, they enable, from economic development, the democratization of opportunities and improvement of the population, which then may have access to schooling and education. Finally, under an entrepreneurial point of view, there is the possibility of undertaking, creating and innovating.

Kraus, Harms and Fink (2010) give evidence of a the great contribution of small businesses in the generation of new ideas, products, service and transactions, seeing that they generally stem from a more entrepreneurial vision with possibilities for being able to use creativity and innovation in a more rapid manner.

Micro-enterprises are inserted in this context, but with differentiated features and contributions, by virtue of their size and dynamics. One of the great difficulties of this type of company is to be inserted and develop in the market due to income limitations that influence the *budget* and the marketing intensity. In this way, communication dynamics and marketing strategies are differentiated in relation to medium and mainly large companies.

This article aims to present the main marketing concepts applied by micro-enterprises within a brief contextualization of a marketing plan. It has secondary objectives that seek to identify how Brazilian micro-businesses can apply the marketing mix strategies (product, price, market and distribution) as well as a knowledgeable level of management tools The development and theoretical evolution stem from a bibliographical research, as well as a field and observational research by the author of this article. The goal is not to exhaust the topic, or construct a Marketing Plan, but rather to contribute to the discussion, learning and use of a *marketing mix* in the segment of micro-enterprises in a more assertive manner. And how can one make this plan work?

According to the Subcommittee Cabinet for Legal Affairs of the Presidency of the Republic (2013), micro-enterprises or small businesses are considered to be the business society, the simple society, the individual limited liability company. The performance of Brazilian economy has offered, in the last decade,

the emergence of micro and small enterprises (MPSs) to meet the growth in the production of goods and the provision of services. And, thus, it requires tools that can offer stability and market growth. In this case, marketing comes to meet those needs.

METHODOLOGY

The classification of the research conducted, according to Vergara (2010), is qualified in two aspects: as to purposes and as to means. As for research purposes, it was exploratory and descriptive. Exploratory, because they have not yet found the existence of any other studies on the subject and descriptive, because their aim was to describe the degree of knowledge of micro-entrepreneurs with regard to tools and marketing strategies. To analyze the knowledge level of the tools and marketing strategies, research was carried out at the Trianon Fair, that is held on Sundays on the sidewalks of the Avenida Paulista in the city of São Paulo, and has an average of 160 stalls. It is one of most traditional regions where its history goes back to the late 70's, and for this reason we chose to study it. A questionnaire applied there was duly registered and analyzed, with both open and closed questions, with the intent of raising administrative issues and other information related to the exhibitors.

Another research was carried out. Where the sample was composed of micro-businesses from various segments in the city of São Paulo, totaling 127 that were chosen for their accessibility, because "foremost of any statistical procedure, chose elements that you have easy access to" (VERGARA, 2010, p. 47). From the results, product characteristics were elaborated, such as pricing and distribution, that compose the application analyses of the marketing tools for micro-businesses.

THE MARKETING PLAN AND CONSUMER MARKET

No company can survive without a good marketing plan. This means that any entrepreneur who wants to get the best results must be clear as to what market needs it will attend to and how it will be done. The financial flow that will make it possible to meet the needs of the company and, at the same time will ensure sustained growth, will be thus obtained from the offer of a package of recognized benefits. Within this perspective, the starting point for the development of a strategic plan is the limitation of its powers through the creation of the mission, vision, objectives and corporate values. After which, it is necessary to have the identified construction of a *marketing mix* able to meet, in a prompt manner, the various market needs.

Micro-enterprises, in Brazil, are generally born from different situations. One of the most common, being the loss of employment which makes the professional look for a short and medium term solution to balance personal cash flow. Another situation is when there is the unfolding of activities that a professional already exerts through outsourcing; another, still, derives from the profile of the entrepreneur himself, being the normal succession process, from father to son, in small businesses. In addition to this, Carlson (1985) already stated that the great differentiator between small, medium and large businesses is their resources, where the small ones have limitations as to generating financial resources for projects and consequently a sustained manner for expansion. Thus, it is understandable that small businesses do not have a more elaborate clear strategic planning, but it is unacceptable that they accommodate themselves and work without a good business and marketing plan. Without a good marketing plan, the company will be able to get results, but without the certainty of measurable results; with one, the company will be able to obtain results more organized and manageable manner.

The consumer as the primary focus of the company

Every business starts from what the market can offer in terms of business opportunities. In this way, every organization must be created from the meeting of the needs and desires of the market. The term *consumer* can be defined as everyone who can buy, rent, use or take advantage of a product or service offered by a company or professional. According to Foxxall (apud BAKER, 2005, p. 87), "the consumer decision-making process is usually described as cognitive. The consumer is aware of a need or desire and a possible means to satisfy it, normally announced in the advertisement of a new brand".

In general, as consumers are spread out over the market, one of the major initial difficulties of the microenterprise is the limitation of its scope. Such companies usually grow from regional demands, promptly meeting determined consumer needs. And, as the offer of products and services is done by different sized companies, micro-enterprises come up against some difficulty in facing the marketing appeals

that the medium and large sized companies make. On the other hand, Hawkins, Mothersbaugh and Best (2007, p. 17) state that:

The most obvious result of the process for an individual consumer, whether the purchase is carried out or not, is some level of need satisfaction that initiated the process of [...] Two fundamental processes are involved – the real need satisfaction and the perceived need satisfaction.

Even with all the limitations, micro-enterprises should be attentive to consumer behavior, which can have great mobility and contact with different companies of different sizes. So, one of the ways of survival for these companies is the use of long-and short-term incentives which will be dealt with later.

One of the biggest challenges is that consumers make their first purchase and then repurchase, thus becoming a client. A client is anyone who has a link, sometimes with a company or a professional. In this context, marketing categorizes two levels of clients:

- Internal customer or internal public, which boils down to the company's employees. In this sense, marketing strategies as *internal marketing* serve as actions that target their involvement and commitment with the objectives and goals of the company.
- External client, which is characterized as one who will purchase the product or service. The enterprise should measure their quantitative and qualitative demand. The first will provide a consumer perspective and the second the profile, which will shape the company's marketing strategies.

Market segmentation as the main strategy for micro-enterprises

Due to its peculiarities, such as limitation of resources and geographic range it is recommended that micro-enterprises promptly use the market segmentation strategies. Under the context of marketing, market segmentation technique considers the characteristics of the market where the company wants to work of extreme value. The market segmentation advocates the idea that the market is heterogeneous with regard to its characteristics and consequent needs, desires and aspirations. In this way, the segmentation technique requires the identification and measurement of differences and groups them into consumption categories. There are three ways to categorize market segmentation strategies:

- Undifferentiated marketing strategy considers the market to be homogeneous with respect to its characteristics and needs. The company can offer a *marketing mix* without any differentiation. Considering Maslow's Theory, one can employ this strategy for products and services that meet basic needs such as water, for example, and the provision of general services;
- The concentrated marketing strategy considers that the market may have special features that the company can meet. In this way, it can focus its efforts on a single market segment. In this case, regionalism anticipates itself as one of the key variables, as well as special features and characteristics of where the company is located; and finally.
- Differentiated marketing strategy, in which the company identifies segments where they want to act and develops a *marketing mix* directed at each one of them. In this case, the company has a portfolio of strategies for each type of client group.

The selection of the best segmentation strategy involves:

- On the part of the company it allows for the optimization of economic, financial and human resources, involving any of the above strategies. There is no differentiation; there is the possibility of bargaining power due to the volumes transacted. If differentiated, it enables the purchase of lots that are compatible with demand.
- On the part of demand there is the option for the product or service that best meets your needs, then loyalty may occur and consequently the periodic purchasing of lots. Market segmentation stems from the needs of the business and its good service towards the costumers, which makes it a form of sustained customer loyalty; on the other hand, if all companies think the same way, the same strategies become forms of competitive differentiation. Baker (2005, p. 44) states that segmentation: "[...] is not only dynamic and uncertain, but also diverse: enterprises are heterogeneous, as well as the nature of the demand".

One can categorically state, however, that one of the main marketing techniques that an enterprise can apply and from where there will be a more effective return is market segmentation, because:

- The company, with detailed knowledge of the market, can better understand their characteristics, needs and deficiencies. From the understanding of quantitative and qualitative characteristics, it is possible to make a referential analysis;
- From the *correct interpretation of data and information, the company should formulate the best marketing mix in a way that so promptly meets and sustains the segment you want to reach*. Through the

very essence of the marketing system, the *marketing mix* is a reflection of the characteristics of market potential;

- According to the supply and demand it enables the measurement, optimization and management of resources to better attend the segment, in view of needs of the enterprise itself;
- Allows for more flexible strategies according to the possible changes, even if they are quick and subtle, this and other complementary niches.

The application of information systems, essentially - Information Systems in Marketing and Market Research - is primordial for the identification of market niches and their characteristics and needs that should be met. Market research identifies quantitative and qualitative demand, referencing market potential. In turn, marketing information systems provide data and feedback information from secondary data. The updating of this data and information is important to give the company the basic elements for the adequacy of marketing strategies according to the product life cycle (PLC) or service to be analyzed. Although micro-enterprises have limited resources, it is understood that they can use the systems in a prompt manner, with the use of secondary data from trusted sources.

The customer base of a company can be categorized according to the consumption profile of their active clients:

- A portfolio with *light users*: customers that buy small volumes. They bring great operational costs and contribute little individually in relation to the working capital needs of the company. However, they can ensure the maintenance of the business, if grouped properly. A small cafeteria can have a daily volume of income from the clients of the famous coffee break;
- A portfolio with *medium users*: customers that buy periodically and in a certain volume. A restaurant per kilo can diversify its menu periodically to maintain its customers; and
- A portfolio with *heavy users*: customers that buy large volumes, but without any frequency. The company must be prepared to meet large batches and consequently cope with stock costs. A company can take advantage of small business opportunities, but should focus on specific events, such as graduations, graduate programs, which bring in high income every six months, enough to meet the needs of the working capital for the whole year.

If a company adopts a mixed strategy, it should make its services compatible in such a way as to attend to all classes of customers. A small business, for example, must have a diverse portfolio of clients with different contributions. In this case, it should make its resources compatible and have good management and control tools.

THE MARKETING MIX OF MICRO-ENTERPRISES

The survival of a company is directly related to the acceptance, on the part of the consumers, of what it offers to the market. McCarthy and Perreault (1999, p. 43) mention that the marketing compound is the set of “controllable variables that the company gathers to satisfy this target group” (consumers). These controllable variables, also known as *marketing mix*, can be categorized as the four P's: product, price, promotion and distribution points. The company should generally offer a *mix* to meet the needs of its consumers. On the other hand, the market should reciprocate the offer of solutions through payments that ensure the sustainability of the company.

Also, as controllable variables, aside from the internal environment, there are the raw material suppliers and services, competitors and distributors, which will be analyzed in conjunction with the analysis of the *marketing mix*. We decided to also avoid macro environmental analysis, which can be categorized as an uncontrollable variable, such as the economic, technological, and demographic environment, among others. In this way, we maintain the focus on the *marketing mix*. The first to be examined will be the product.

Product

In a *marketing mix* there is what is offered to the market in material form. Kotler and Armstrong (2008, p. 200), as the basis for all the marketing compound, define [...] a product as something that can be offered to a market for assessment, acquisition, use or consumption and that may satisfy a desire or need. Products include physical objects, services, events, people, places, organizations, ideas or a mixture of all of these entities.

Micro-enterprises have characteristics and particularities that influence the product offered, as in Table 1:

Table 1 – Product features.

Item reviewed	Particularity	Analysis and recommendation
Raw material suppliers and services	For having limited financial and economic resources, the company may find it difficult to acquire raw material or services at competitive prices.	You can choose the purchasing cooperatives, where the same raw materials can be purchased in volume and increasing bargaining power with suppliers.
Production	The company may have difficulty in producing or simply selling in large quantities.	Can try outsourcing processes and focusing on its customer base.
Distributors	The company usually sells its products in a regional fashion, within its reach capacity.	Can try negotiating, concentrating intensively on the distribution of what it sells.
Competitors	The company may have different types of competition, according to their specific characteristics, such as size and composition of what is sold.	Aggressive monitoring should be drawn up in relation to direct and indirect competitors.

Source: Authors

In this way, the micro-enterprises should look for alternatives in order to increase sales through the increase of its production capacity and, consequently, their productivity and scale economies. There are two crucial points to enable growth in a sustained manner:

- Obtaining productivity and scale economies means increasing one's financial return and decreasing costs and expenses; and
- Obtaining competitive differentiations through gradual innovations. Small businesses must provide products or services to the market, despite their research and development limitations. The innovations coming from small businesses can represent a way to decentralize power – which is naturally centered on large companies.

A good example is the strategy of an *Excel* spreadsheet, which is part of a *Windows* package. This spreadsheet was previously known as *Lotus* and the company that developed it did not have the resources to market it internationally. They decided then for patent registry and concession to Microsoft. In this way, the product could be marketed globally, regardless of the size and resources of the company concerned. A solution for the lack of resources to be adopted by micro-enterprise is building on provision of financial resources by entities such as the National Economic and Social Development Bank, BNDES, as well as the guidance of entities such as the Brazilian Service of Support for Micro and Small Enterprises, SEBRAE. In addition, higher education institutions, through their junior companies and incubators, can become paths for innovating products and services and for business management itself. Below, the distribution channels will be analyzed under a more organic viewpoint.

Relationship channels

From the perspective of a *marketing mix*, there are also distribution channels, which initially may be defined as entities that provide the exchange between manufacturers and consumers. However, in a more organic vision, these entities have different and important roles in the process of exchange. According to Kotler and Armstrong (2008, p. 304),

Generating a product or service and making them available to buyers requires building relationships not only with customers but also with suppliers and salesmen in the supply chain of the company. This consists of supply chain partners "at levels above " and " levels below ".

On the level above are the suppliers, and the distribution channel represented by wholesalers and retailers are on the level below. According to the number of participants, there are the following levels:

- Zero-level - characterized by direct marketing with the client. In this case, the company can get better financial returns for not having distribution and marketing expenses, but must absorb the transaction and operational costs,

- Level one - there is the presence of retailers, which can be defined as specialized agencies in trading and transactions that increase the reach of the company within the consumer market; and
- Level two – there is the presence of wholesalers that buy in bulk and resell to retailers and/or end customers. Generally, there is little possibility of operation by micro-enterprises at this level, due to production limitation, except for negotiations and specific contracts.

However, every company needs to have an integrated view of its business, as well as what each entity aggregates in relation to the value perceived by consumers.

Table 2 - Distribution characteristics.

Item reviewed	Particularity	Analysis and recommendation
Transacted volumes.	The company has no bargaining power with the distribution channel.	The company can choose for a negotiation that facilitates more effective frequency at the expense of increased cost, distribution and marketing expenses.
Logistics.	The company may have difficulty in receiving, stocking and marketing the product.	Must have a management that enables rational planning stemming from its limitations.

Source: Authors

Distribution strategies can be categorized in intensive, selective and exclusive:

- Intensive distribution strategies imply strong distribution capability throughout the market and with great geographical reach. For reason of their limitations, micro-enterprises are unable to achieve this level of intensity;
- The strategies of selective distribution indicate that the company may choose certain dealers, according to their production limitations, as well as their access to different categories of consumers; and
- Exclusive distribution strategies indicate that the micro businessman has chosen a company category for the marketing of their product, which gives them better control and focus on their sales.

Companies in the area of food products, such as, for example pizzerias, have bypassed geographical limitations by means of outsourcing their deliveries. Another important factor is the possibility of geographic dispersion. A good example is the Giraffe's, which has obtained considerable growth and is also present internationally. In recent times, logistics areas – internal and external – and physical distribution have become one of the greatest objects of analysis. It is of no value having a good product if it is not open to distribution or if there is any delay in delivery. The solution for micro-enterprises is sound management through the creation of indicators. If on one hand, the introduction of management indicators, such as the *Balanced Score Card* (BSC), can initially generate barriers, due to the standardization of procedures and processes, it will allow the company to have a more complete vision of the business, as well as the relationship channels.

Following below are the tangible products pricing strategies.

Initial pricing concepts

Every company must charge for what it offers to the market; all consumers must pay, and understand that they are getting something of a particular value. Thus, Kotler and Armstrong (2008, p. 258) note that In the strictest sense, price is the amount you will charge for a product or service. More widely, the price is the sum of all the values that consumers exchange for the benefits of getting or using a product or service. Historically, the price has been the main factor that affects the buyer's choice.

The formation of the price for the final consumer is one of the hardest decisions in the marketing compound, since it involves different variables that small business people are sometimes not aware of. It can and must involve aspects related to production and marketing costs, fixed and variable, and profit margin, i.e. should be contextualized with the chain of values and corporate objectives of the company. Supplementing with McCarthy and Perreault (1999, p. 275): "price objectives should flow and be adjusted to the company and their marketing goals. It should be explicitly declared because they have a direct effect on price policies, as well as the methods used for their determination. "

According to the strategic planning of a company, the strategies of pricing can be:

- Elite or creaming method, in which the company offers to the market a product or service at a high price, being understood that this has a high added value, and that there is a consumer market interested and with sufficient income; and
- Floor or introduction, in which the company offers something at a low price, considering that the product or service does not have sufficient attributes that lead consumers to pay a higher price for it.

The selection of price strategies results from several situations involving: the categories of products and services offered, competition, suppliers, level of competition and expectation of returns on initial investment and working capital. In most cases, micro-enterprises offer a product or service at a competitive level, concerned mainly with short-term return. In sequence and terminating the analysis of the *mix*, the various forms of communication, information and promotion of their businesses, companies, products and services.

Promotion Tools for a micro-enterprise

To inform and market their products and services, all companies must use a composite of promotion. According to Kotler and Armstrong (2008, p. 357), Building good relationships with the client requires more than just the development of a good product, giving you a competitive price and making it available to the target customers. Companies also need to communicate their value propositions to customers.

The promotion compound is formed by long-and short-term incentives in order to motivate consumers into buying products and services at that time, but also aiming at managing the beginning and promoting the maintenance of the business relationships. Long-term incentives may be advertising and public relations; and short-term incentives can be categorized as sales promotion and personal selling.

Table 3 - Characteristics and applications of the compound of promotion.

Composite Item	Particularity	Analysis and recommendation
Advertising .	Long-term stimulus that aims to inform and generate relationships, especially with the target audience. Usually using printed, virtual and electronic media.	Because of the cost and breadth, in general, the micro-enterprise ceases to opt for this alternative of promotion or even the option for a more regionalized vehicle, such as neighborhood newspapers and similar means.
Public Relations.	Long-term stimulus that aims at generating relationships with different public, including the target market. With such tools as <i>news</i> and <i>press releases</i> .	Because of the diversity of ways to generate the stimuli, it can be an important tool of exposure with the public nearest to the company.
Sales promotion.	Short-term stimuli, aimed at transforming the action in selling, such as discounts, promotional packages, among others.	It is one of the most suitable stimuli for small firms, for facility reasons and for not having high developmental costs.
Personal selling.	Short-term stimulus that aims at contributing towards more forceful sales.	It is one of the most commonly used stimuli by small businesses, by the very nature of its operations.

Source: Authors

Micro-enterprises should combine the different actions in accordance with their goals and objectives, as well as in accordance with their expectations and budget. In general, the company must therefore generate long-term incentives, disclosing their name and promoting their respective products and services. In addition, short-term stimuli should be promoted in order to render sales and have the consequent return on their investment. In the specific case of micro-enterprises, it is natural that they make greater use of short-term incentives because of their need for financial return.

One option is the use of the internet to disseminate the company, as well as for marketing and sale of its products and services. Lodish, Morgan and Kallianpur (2002) recall the importance and relevance of the *web* in business enterprises and viral marketing.

Some companies can get free exposure by yielding part of their products and services. It is natural for restaurants to give amenities in exchange for exposure in newspapers and magazines. According to the methodology mentioned, some research was carried out by the author together with Teresinha Covas Lisboa and Fernando Brasil da Silva (2010), with the purpose of identifying the knowledge level of the management tools, as well as those related to marketing strategies.

Table 4: Administrative Skills.

INSTRUMENT	KNOW	%	UNAWARE	%	TOTAL	%
Cash flow	35	48.61	37	51.39	72	100.00
Selling price	56	77.77	16	22.23	72	100.00
Sales techniques	66	91.66	06	8.34	72	100.00
Accounting	15	20.83	57	79.17	72	100.00
Marketing	27	37.50	45	62.50	72	100.00
Legal	18	25.00	54	75.00	72	100.00
	217		215			

Source: KUAZAQUI; LISBOA; SILVA, 2011, p. 7.

Such ignorance on the part of micro-entrepreneurs derives from various reasons, having as the main factor a lack of administration and marketing training, as well as in specific management areas. Adding to this reality, as was testified by Carlson (1985), the micro-businesses also have limited resources, which can hinder their growth in a sustainable way. Completing the analysis of the *marketing mix*, small businesses should look at their resources and possibilities for expansion and growth through the characteristics of the market in which they wish to act. Administration and management of resources with an integrated view of the market can provide the company with a clearer vision of the future, making for stronger strategic planning and ensuring its sustainability. Concluding the article, marketing trends will be briefly analyzed with focus on social responsibility and sustainability.

MARKETING TRENDS FOR MICRO-ENTERPRISES

Micro-enterprises contribute significantly to national economy, but they are influenced by external variables, such as the international, economic, social, technological, demographic, geographic environment, among others.

According to the Brazilian Service of Support for Micro and Small Businesses (SEBRAE) the number of micro-enterprises in the country has grown which also denotes a certain level of entrepreneurship. SEBRAE is a private non-profit organization established in 1972. It aims to promote competitiveness and sustainable development of micro and small enterprises. Maybe there would be a fewer number of new small businesses, if the opening decision involved only the financial aspects and equipment; but the entrepreneurial spirit drives the entrepreneur to think differently and adds more power to one's business. As direct consequences, there is the generation of new posts of employment that comprise direct social gain, aside from the possibility of the creation of new technologies and innovation. Oliveira (2008, p. 3) states that: The field of corporate social responsibility is not only for multinational companies that have global impact. Small companies have important economic activities at the local level in many parts of the world. In addition, many have a very close relationship with the company, investing in social projects, even if they are not recognized as social responsibility actions.

In counterpoint, Ghemawat (1999) develops an interesting theory about management from the use of resources (be they limited or not) for sustained growth. Finally, we highlight here, a text from "Guia Exame" (2011, p. 88), according to which, Around the world, the quest for a more sustainable economy became one of the great hopes for the resumption of growth. New technologies will need to be created, production methods will have to be reviewed and it is possible that the way we deal with natural resources will go through a radical change. Where will innovation blossom? It is hard to say. If the example of the technological revolution is repeated, many of the novelties will come from new companies, generated by

visionary entrepreneurs. It is this, in addition to other factors that are uniting small companies with sustainable appeal and large businesses interested in improving their own performance indicators, in social and environmental areas.

In this way, one can understand the current importance of micro-enterprises and their significance in a wider context, visionary and within the perspective of integrated social responsibility and environmental sustainability.

FINAL CONSIDERATIONS

There is no doubt of the importance of micro-enterprises for any country. Their contribution lies mainly in the economic and social insertion. It should be noted that micro-enterprises are the main ones responsible for the generation of employment in our country, denoting their prominent social and ecological perspective. As part of their nature, micro-businesses have limited resources, highlighting financial and personnel, impacted by the bargaining power together with their suppliers and distributors, as well as their capacity to offer their products or services in a more aggressive manner to the consumer market, once they do not have the necessary transaction volumes so as to obtain better business possibilities. Aside from this, the entrepreneurs are deficient as to management knowledge and the respective assertive use of their instruments and management tools. However, we can highlight the importance, aside from those referred to above, of the possibility of micro-businesses embarking on the use of creativity as a means of bringing about innovations that aim at developing necessary technology for society. The act of enterprising is extremely relevant, considering the possibility of creating new forms of regional businesses, as well as future possibilities of internationalization. In this way, it becomes necessary to have manager and collaborator professionalization in small businesses, whether by means of academic graduation or courses and specific training, that make management tools and marketing practices more competitive in relation to domestic and international markets. More than a transient way of earning money, the reality of micro-enterprises should be considered as a social and economic phenomenon able to generate regional growth and, consequently, global.

REFERENCES

- BAKER, Michael J. *Administração de marketing*, 5ª ed. São Paulo: Campus, 2005.
- CARLSON, David J. (1985) The Evolution of Marketing in Small Firms. *European Journal of Marketing*, Vol. 19 Iss: 5, pp.7 – 16
- GHEMAWAT, Pankaj. *A estratégia e os cenários dos negócios*. Porto Alegre: Bookman, 1999.
- GUIA EXAME 2011. *Sustentabilidade. Novembro/2011*.
- HAWKINS, Del I.; MOTHERSBAUGH, David L.; BEST, Roger J. *Comportamento do consumidor. Construindo a estratégia de marketing*, 10ª ed. São Paulo: Campus, 2007.
- KOTLER, Philip; ARMSTRONG, Gary. *Princípios de marketing*, 12 ed. São Paulo: Pearson, 2008.
- KRAUS, Sascha; HARMS, Rainer; FINK, Mathias; *Enterpreneurial Marketing: Moving Beyond Marketing in New Ventures*. *International Journal of Entrepreneurship and Innovation Management*. Vol. 11, n.1, 2010, pp. 19-34.
- KUAZAQUI, Edmir. *Marketing internacional: construindo conhecimentos e competências em cenários globais*. São Paulo: M. Books, 2007.
- _____; LISBOA, Teresinha Covas; SILVA, Fernando Brasil. *A contribuição regional das feiras de artesanato na cidade de São Paulo*. Rio de Janeiro. SEGET, 2011.
- _____; _____. GAMBOA, Márcia. *Marketing e gestão estratégica para empresas privadas e públicas*. São Paulo: Nobel, 2006.

LODISH, Leonard; MORGAN, Howard Lee; KALLIANPUR, Amy. *Empreendedorismo e marketing. Lições do Curso de MBA da Wharton School. São Paulo: Campus, 2002.*

MALHORTA, Naresh. *Pesquisa de marketing. Foco na decisão, 3ª ed. São Paulo: Pearson, 2009.*

McCARTHY, E. Jerome; PERREAULT Jr., William D. *Marketing essencial. Uma abordagem gerencial e global. São Paulo: Atlas, 1999.*

OLIVEIRA, José Antonio P. de. *Empresas na sociedade. Sustentabilidade e responsabilidade social. São Paulo: Campus, 2008.*

PRESIDÊNCIA DA REPÚBLICA. Subchefia para Assuntos Jurídicos. Disponível em <www.planalto.gov.br/ccivel_03/leis> . Acesso em: 13 Fev. 2013.

SEBRAE. Serviço Brasileiro de Apoio às Micro e Pequenas Empresas. Disponível em <www.sebrae.gov.br>. Acesso em: 13 Fev. 2013.

VERGARA, Sylvia Constant. *Projetos e relatórios de pesquisa em administração, 12.ed. São Paulo: Atlas, 2010.*

_____. of Administration Survey) *Métodos de pesquisa em administração. São Paulo: Atlas, 2005.*

IMPROVING SERVICE QUALITY IN MALAYSIAN HOTELS: EXPLORING THE PEOPLE DIMENSION

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ABSTRACT

In Malaysia, tourism is a major catalyst for growth and development. While many Malaysian hotels are opulent, well-appointed hotels, service delivery standards are inconsistent. The aim of this study was to develop a customized, industry-wide service delivery model that could assist hotel operators to improve service quality. In-depth interviews were used to explore experts' perceptions of the importance of aspects of the people dimension in service delivery. The data obtained from this research process was then used to fashion a customised service improvement model by extracting the most appropriate service improvement dimensions from existing, empirically tested models within the literature.

INTRODUCTION

Tourism is an important industry that contributes at least 9 per cent of the world's Gross Domestic Product (GDP), employs over 255 million people worldwide and represents 8 per cent of the global workforce (World Travel & Tourism, 2012). The industry makes a significant contribution to the economic development of many countries with some countries reliant on tourism as a catalyst for growth and development. This is the case in Malaysia where the tourism industry has been hosting large numbers of tourists arriving for business or vacation purposes as well as transient passengers' en-route to other destinations. In 2011, the hospitality and tourism sector contributed MYR58.3 billion (USD 19.3 billion) towards Malaysia's GDP and it was ranked second, after the manufacturing sector, in terms of overall economic contribution (Annual Tourism Statistical Report 2009; Ministry of Finance 2010 Tourism Malaysia, 2012). The Malaysian hotel industry has experienced significant growth in the last 10 years and many hotels in Malaysia are now opulent, new hotels achieving the highest standards of presentation. However, service delivery often lags behind the physical environment and struggles to meet international standards and ergo the expectations of international guests.

There are diverse views among service quality researchers as to how to improve service delivery standards. Nevertheless, there is general agreement within the literature that there is a link between employee satisfaction and job performance and that employee satisfaction has a profound influence on service delivery (Arnett et al. 2002; Berry & Parasuraman, 1991; Parasuraman et al. 1985). Service sector researchers in particular have recognised that businesses that develop motivated, customer conscious employees achieve better service outcomes because employees who do not have confidence in the service that they are required to deliver are incapable of delivering services in a manner that meets or exceeds customer expectations (Berry, et al.1976; Berry, 1981; Grönroos, 1983). However, by attracting, motivating, and retaining qualified personnel and by providing service tools designed to satisfy their wants and needs, organisations can develop a commitment to their mission and goals (Berry, 1981; Grönroos, 1983). In this way, internal employee relationships pave the way to building external customer relationships that, in turn, lead to long-term commitment by customers to the organization (Bowen and Shoemaker, 2003).

Past literature has revealed that service delivery personnel are considered to be among the most important factors in producing high quality service (Heskett, et al., 1994). Previously validated quality improvement models such as Total Quality Management (Breiter and Bloomquist, 1998; Kanji and Asher 1996; Sila and Ebrahimpour, 2002), Six Sigma (Pearlman and Chacko, 2012), SERVQUAL (Parasuraman, et al., 1988), Relationship Marketing (Bowen and Shoemaker, 2003), Internal Marketing (Berry and Parasuraman, 1991), and Internal Market Orientation (Gournaris, 2008) contain dimensions that are important but may not be appropriate for the Malaysian Hotel Sector. In light of this, and the literature that highlights the importance of the people dimension in service quality improvement, the following research question has been developed: Which characteristics (dimensions) of existing service quality models would be most appropriate to improve service delivery within the Malaysian Hotel Sector?

METHODOLOGY

While the ultimate aim of this research was to develop an appropriate service delivery model for the Malaysian hotel sector, it was critical to gain an understanding of the industry context to ascertain whether the human resource or “people dimension” is likely to play a key role in overall service improvement. In this way, a suitable model could be fashioned from the plethora of quality improvement models available within the literature based on input from local level stakeholders. Consequently, the views of local experts were seen as critical to explore whether a model that focused primarily on the people dimension was indeed appropriate for the Malaysian hotel sector. To this end, the researchers employed qualitative research techniques to gain insights from key experts. Semi-structured, in-depth interviews were employed and interviewees were selected on the basis of the industry perspective that they could provide (Minichiello et al., 1995).

As noted earlier, the tourism industry in Malaysia is a key economic contributor. As a result, the industry is supported by a number of government and non-government entities. For example, the Ministry for Tourism is responsible for increasing tourist numbers and tourism related revenue across the State, while the Ministry for Labour (Human Resources) is responsible for human resource development, remuneration and general working conditions within the State. Universities and colleges in the public and private sectors are responsible for preparing students for positions in the industry and hotel operators are responsible for hospitality operations and employees. Experts who could provide a view from each of these perspectives were included in the sample and each of these experts was recruited to take part in an in-depth interview. The sampling profile included a representative from the Ministry of Tourism, a representative from the Ministry of Human Resources, two hospitality and tourism educators, two hotel general managers (one from a four and one from a five star property) and two hotel human resource managers (one from a four and one from a five star property).

The semi-structured interviews were supported by an interview schedule based on themes and topics found within the literature. This level of structure was appropriate because, according to Marshall and Rossman (1995), structured interviews limit the potential for unexpected themes to emerge, while unstructured interviews tend to lose purpose. During the interviews, respondents were asked to provide their opinions on the current state of play in the Malaysian hotel sector with a specific emphasis on the importance of employee satisfaction in improving service delivery. They were also asked to discuss any other issues or inputs considered valuable to improve service delivery.

ANALYSIS AND RESULTS

The interviews were transcribed and coded, categorising topics and themes by using the headings in the interview schedule as a first step, and then allowing for emerging themes to develop systematically. The duration of the interviews ranged from 40 minutes to 1 hour and 45 minutes. Respondents were of the opinion that the key to improving service quality was indeed to focus on hotel employees’ needs and wants and the first step would be to examine the current system of remuneration. All respondents expressed strong views on this issue and believed that it had the most influence on service quality and, more importantly, service quality improvement. In general, these experts agreed that hotel employees in Malaysia are underpaid and poorly compensated for their work. As the interviews progressed, it became clear that the people dimensions or matters related to employees are critical to improving current service provision and to the future of the hospitality industry. This confirmed the importance of the human resource related dimensions of the proposed service improvement model.

Monetary compensation was seen as one of the most significant issues because the experts believed that one reason that hotel employees decided not to further their employment in the industry was because they found jobs in other industries that pay better salaries. In contrast, however, one expert felt that some hotel employees were overpaid compared to employees in other industries. This, however, was not the collective view. One of the experts also suggested that salary is one of the most important motivators for employees to perform better, but felt that the issue was not given sufficient attention by the Government or hotel operators. One of the experts explained that a fair compensation system is paramount to improving service delivery. Another expert explained that the ultimate way to improve service delivery within the hotel industry in Malaysia was to pay good salaries to hotel employees. He added that the majority of hotel operators in Malaysia fail to deploy proper Human Resource Management Practices with regard to compensation. He also asserted that many highly qualified graduates choose not to work in the industry due to poor remuneration.

Respondents also expressed the view that the majority of hotel operators assume that the function of hotel employees is to work and to execute tasks rather than to develop relationships with guests, or any of the other important tasks that are within the mandate of empowered workers. Respondents felt that they (hotel operators) were of the view that hotel employees are paid a salary and they should perform any tasks assigned to them. This is in keeping with the view of human resource management that views employees as an input to be exploited rather than a resource to be developed. The issue of remuneration, however, was extremely complex as the views and quotes expressed in the following sections show.

One consequence of low salary levels was that many hotel employees were reported to live below the poverty level. This claim was made on the basis that many rank and file employees are paid less than MYR 500 (basic salary) per month. As one respondent explained:

In Malaysia if the total household income is below MYR 500 you are considered under the poverty level. For an argument how rank and file hotel employees could survive with MYR 400 basic salaries in a month. In general MYR 500 ringgit minimum wages is practiced by hotels in Malaysia right now ... (Expert 2).

He went on to explain that "... at the moment, most hotel employees are being paid under the poverty level" and this expert strongly suggested it was crucial to review the hotel employee salary system not only to improve service but to assist in developing the skills needed to support the growing tourism industry.

The majority of experts proposed that a minimum wage for hotel employees should be introduced within the industry. They felt that to have a minimum wage in place would eliminate a number of current industry problems such as 'job hopping' and employee turnover. They also contended that this strategy would help the industry to improve service delivery. One issue that was raised as a demotivating influence for rank and file hotel employees was that management level employees enjoy a good base salary compared to lower level employees. Management also enjoyed longer vacations and a variety of other benefits that are not available to lower level employees. The experts felt that this was unfair, because lower ranking hotel employees are the back-bone of the industry and work extremely hard.

One of the experts also felt that the working environment, including the hours and job conditions, were not acceptable to hotel employees. Another respondent expressed the view that even if hotel employees were paid a good salary, they would certainly resign if they received a better offer from another hotel. This expert was of the view that there is no sense of loyalty among hotel employees; however, other respondents argued that hotel operators should have good employee retention strategies to overcome this problem. Another issue of compensation perceived to be important to the delivery of quality service was competition to employ the best talent to work in the hotel industry. One of the experts explained that hotels that have the capacity to pay a good salary are able to attract the best talent, but many highly talented hotel employees in Malaysia were also offered better salaries and benefits from other countries such as The United Arab Emirates, Taiwan, and Hong Kong. This was seen as a serious problem for hotel school graduates because of the state investment in education, which was then lost to Malaysia.

One of the experts also explained that uncontrolled hotel development has an adverse impact on the quality of service delivery as well as salary levels. That expert explained that when there are too many hotel rooms available in the Malaysian market, the need to employ more employees' increases. This creates a competitive employment market and salaries increase, pushing up overall costs. Employing untrained

employees was seen as a solution because they accept lower salaries. Thus, it was perceived that the quality of service delivery could be jeopardised by the addition of new hotels to the market.

One issue that emerged that had a direct impact on the compensation structure was that, under the *Malaysian National Wage Act 1960*, service charge (points system) payments made to hotel employees are not considered as salary. This is apparently because legislators are aware that the total amount of service charge varies from month to month. However, under the *Malaysian Employment Act 1995*, the remuneration from service charge is considered as salary. This issue has confused many hotel operators and they tend to opt to follow the *Malaysian National Wage Act 1960*. This is the lowest cost solution for hotel operators who rely on this Act to pay low contributions to the Employee Provident Fund (EPF) Agency (equivalent to superannuation). As one expert put it, there is both confusion and a lack of understanding about how best to tackle this problem:

... we have a problem agreeing to the mechanism under the Minimum Wage Act because other payments like service charge, are not counted as wages, but in the Employment Act, the definition of wages states that any payment other than salary, is also counted as wages, so you must treat service points as a wage. This means that service charge from your salary is counted as wages but under the Employment Act other payments must be excluded. So the Minimum Wage Act and the Employment Act are conflicting ... (Expert 5).

The expert went on to explain that "... the implementation would have a lot of complications for various entities in the business, however, the development is seen to be positive because we want the industry to be a prosperous industry for Malaysia as well as for hotel owners ..." (Expert 5).

Several respondents noted the Government's intention to introduce a minimum wage for hotel employees was a good strategy; however, there are stakeholders that are not happy with this decision. One reason for this was that the Employee Provident Fund (EPF), which is a pension scheme, requires a percentage of salary be paid in to the fund by employers for their employees. By using salary only, without service charge, to calculate this, the contribution for each employee is lower. This benefits the employer but leaves the employee with little to look forward to in retirement. This is a major issue, according to one expert who stated that "the Ministries are very concerned about this issue, because even though you take home MYR 2000 including points, your salary slip will only show MYR 400 and a low contribution to EPF ..." (Expert 8).

When commenting on the issue of a minimum wage, the majority of experts agreed that its introduction is inevitable and most felt that it should be implemented as soon as possible. This should be done, it was explained, to attract the best talent to work in the hotel sector. This would also reduce reliance on foreign workers currently imported to fill employee shortages. One of the experts also suggested that the service for front of house tasks should only be delivered by locals. Demands of the job, was another key theme associated with both compensation and the ability to provide high quality service. As one expert succinctly put it "... because they are on their feet twenty four seven, you can't be expecting them to give the service if there are not compensated ..." (Expert 1). Thus, it is this expert's opinion that excessive workloads are detrimental to improving service quality. Clearly then, the notion of happy staff making customers happy is not currently practiced in Malaysia, at least not in the view of this respondent. Several experts felt that because employee's basic needs were not being met, they could not deliver high quality service. Expert 1 explained this by contrasting the situation in Malaysia with service employees working on cruise ships stating that:

... comparatively when you look to the western service worker working on a cruise that employs 648 employees on board for example, when guests talk to one of them the service provider keeps on providing good service and is polite all the time. The main reason why they behave like that is because they are being put in a comfortable place. They don't have to worry about their well-being; they just concentrate on their job. This could happen in the Malaysian Hotel Industry Scenario ... (Expert 1).

Another expert held a similar view and highlighted the issue by referring to Malsow's Hierarchy of Needs advising that:

... even though you train the employee, if they are not compensated well, the training program does not make any sense, as when you look at the fundamentals of Abraham Maslow's

hierarchy of needs, I know it is an old theory, but I strongly believe that that theory can also be applied here in Malaysia. When someone's physiological needs are not fulfilled, how could you move to another level of your life? So, in relation to that, how can someone, I mean hotel employees, give more to their company (hotel operators) if their basic needs are not fulfilled? To fulfil their needs, someone is heavily relying on monetary resources to fulfill their needs and wants, for example, shelter, food and drink, sleep, or we can say as the basic needs to live in this world ... (Expert 7).

One of the proposed strategies to deal with the lack of interest among employees in the hotels sector is to listen to hotel employees' demands, one expert asserted. He explained that:

... the hotel industry in Malaysia is unregulated in terms of compensation. My deepest opinion is that hoteliers should listen to the demands of hotel employees. The main factor which leads hospitality and tourism graduates deciding not to work in hotels or to work in hotels, but abroad [i.e. in other countries] are heavily due to the issue of compensation, which is salary and other fringe benefits ... (Expert 2).

He added that other industries in Malaysia that have good compensation systems, when compared to the hotel industry, do not have issues of labour shortages or a shortage of skilled labour. He cited the following examples adding that:

... accounting, finance and information technology (IT) graduates enjoy good compensation, however, hospitality graduates are basically paid low salaries ... [This is odd because the hospitality and tourism industry is a booming sector contributing the second highest contribution to the Malaysian economy. How ironic the situation ... (Expert 2).

While reviewing the dimensions of the proposed model one of the experts contended that improving training and development programs as well as revising the direct and indirect compensation systems is important to improve service delivery. He commented that:

... I believe that all elements suggested by you are crucial to the improvement of the service, but for me I would like to stress that ... the pay system falls under the umbrella of direct and indirect compensation ... (Expert 2).

He reiterated that happy employees would certainly make customers happy and to support that contention he reported that:

... what is important right now, if the employee is happy, the customer will be happy too. If you are taking care of your staff, definitely you staff will take care of your business, that's for sure and they will provide better service to the customers and as a result the chances of the guest coming back for another stay will be high ... (Expert 2).

In addition, repeat customers could be created and "... if somebody is happy with their company and job, definitely they wouldn't mind to do extra work for the company ..." (Expert 2). The expert asserted that it was critical to come up with a solution to this as a means to maintain industry competitiveness. Compared to other countries Malaysia, in his opinion, is being left behind. The expert commented that:

... when we compare the scenario with Australia, Britain and most major cities in Europe, many hotel employees work in one hotel for 20 years or more because they are paid very good money and their welfare is being taken care of. But in the Malaysian scenario it is different. The hotels push the employees to give 100 per cent commitment but their remuneration and welfare are not been taken care of. So I think this is the root cause of the problem ... (Expert 7).

The expert further explained that:

... so if you look at this example, do you think our graduates will work in hotels? As a result, how are we going to improve the service in hotels if we keep on losing graduates that are fully trained by the hotel schools? The problem is rooted in the failure of Human Resource Practice by hotel operators. There are other instances of hospitality graduates taking jobs in the telecommunications industry. They have been offered MYR 1800 in salary, MYR 11 transport allowance every day, a shift allowance of MYR 20 a day, a mobile phone allowance of MYR 300 a

month and performance allowances of MYR 500 a month. So how can the hotel industry compete with this kind of package offered by other industries ... (Expert 7).

These other industries were perceived to have exceptionally competitive compensation packages and to have taken every effort to attract the best talent available in the country.

Expert eight further submitted that the majority of hotel employees are not happy with the salary they receive, adding that the room rates offered by the Malaysian Hotel Operators are considered to be among the cheapest in the region and this was why employees were not well paid. As he pointed out "... room rates are cheap, if the rates are cheap definitely the revenue will be not so high, so how are we going to attract good employees to work with us when we can't afford to pay them good money..." (Expert 8). The expert further explained that:

... when you look at the banking industry, you probably get MYR 1600 or MYR 1800, and here because of service charge and the salary, if the room rates are higher, the take home pay will be higher, because the starting salary is MYR 350 then you get 3 points, normally in a 5 star hotel 1 point can be MYR 350 times 3 is already MYR 1050, plus MYR 350 [basic salary] is already MYR 1400 ... (Expert 8).

In discussing the topic of training and development as well as hotel employees' career development, it was found that the majority of experts agreed that training is a critical factor in improving service delivery. Almost all of the experts asserted that, in order to have excellent service, hotel employees must be trained and they should be equipped with the right tools to execute service related tasks. It was claimed by one expert that "...most managers neglect the need for training as many of them do not have time to train their staff ..." (Expert 3). He further argued that, if there is no training or inadequate training, hotels could not improve service delivery.

Although this was one view, the issue of ongoing training featured heavily in the interviews and one of the experts captured the general view of respondents, arguing that training and continuous learning could assist in improving service delivery. One of the experts also asserted that training programs should be tailored to the needs and wants of customers. By this was meant that it is important for hotel operators to equip their employees with current knowledge and skills in order to serve international guests. One example presented was to train employees to handle the increasing number of disabled people and senior citizens that are currently accessing tourism in Malaysia.

Career development was another theme within the realm of training and development. The majority of experts agreed that hotel employees' career development should be well-planned as they asserted that career advancement was one of the most motivating factors for employees in Malaysia. Career path development was proposed by these respondents to have the capacity to reduce turnover rates among hotel employees in Malaysia because it was claimed that if employees were provided with a career development plan they would be able to work to the plan, develop their future careers and improve their job security.

In developing career pathways, two experts postulated that a management trainee program should be introduced. Such a program would provide hotel employees with adequate training in various departments within a hotel for a defined period of time. To further improve the program, hotel employees should have the opportunity to undergo international cross cultural exposure training. However it was recognised that this type of training could only be afforded by International Chain Hotels with a network of hotels in other countries.

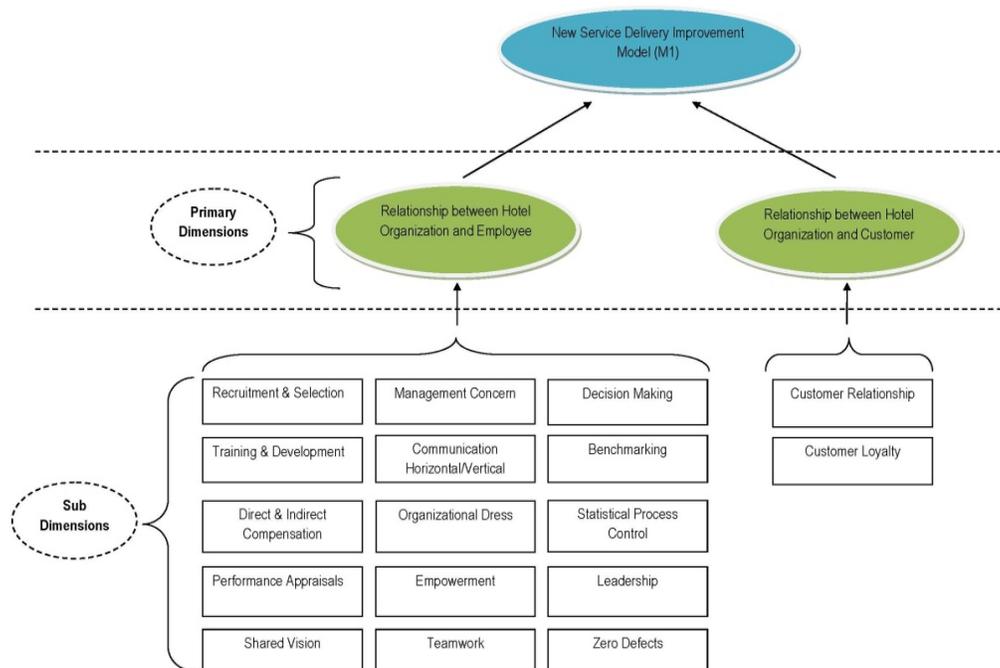
IMPLICATIONS FOR SERVICE IMPROVEMENT

Having established that the people dimension was critical to service quality improvement within the Malaysian hotel sector, the next step was to review the literature to identify appropriate quality improvement models that emphasised the importance of the "people dimension" and to develop a model that included those dimensions that focused on attracting, motivating, and retaining qualified personnel and created an environment where employees were supported by service systems and tools designed to satisfy their wants and needs. A review of literature uncovered a number of quality improvement models that included these dimensions; however, only those models that had been empirically tested were deemed appropriate to include in the proposed model. These were; Total Quality Management (TQM), Six Sigma, SERVQUAL, the Relationship Marketing paradigm, Internal Marketing and Internal Market Orientation (Gounaris 2008;

O'Mahony et al. 2013; Powell 1995; Ravichandran 2006; Shamji 2005; Sureshchandar et al. 2001; Thawani 2004).

Each of these was reviewed and it was found that there were a combined total of 240 dimensions that were seen to have an impact on service delivery. A process of elimination was introduced to develop a more manageable model and those dimensions that were more appropriate to non-service settings, such as manufacturing, were omitted and the most significant barriers to service improvement expressed by the experts were given precedence. These included recruitment, remuneration, training and development, the working environment (including the demands of the job), working hours and empowerment. This led to the development of a provisional service improvement model containing the 17 dimensions depicted in Figure 1.

Figure 1: Employee focused Service Delivery Improvement Model developed from interviews with experts and existing models.



CONCLUSIONS AND LIMITATIONS

The qualitative research uncovered the most significant barriers to service improvement that needed to be addressed in order to improve service delivery within Malaysian hotels. The majority view expressed by the experts was that recruitment, remuneration, training and development, the working environment, including the demands of the job and working hours were major issues of concern. Employee turnover was also seen to be a significant problem, which is consistent with the findings of Hemdi and Nasrudin (2005) study in Malaysia which found an unacceptably high number of hotel employees intended to leave their employment seeking better working conditions within other hotels or in other industries. Respondents' comments on training and development would also seem to suggest that workers are not being empowered within their current roles, which also has an influence on employee satisfaction and employee turnover intentions (Lashley 1996; Spreitzer, 2005). Most important, however, was the issue of employee remuneration which has a marked influence on recruitment, employee turnover and the delivery of quality service standards. The developed model addresses these key dimensions including elements that increase motivation such as management concern, communication and shared vision as well as dimensions that provide a sense of self (empowerment), and a sense of place (organizational dress). As such, the model has the potential to have a significant, positive impact on improving service quality within the Malaysian hotel sector.

This research has potentially significant policy implications, since the tourism and hospitality sectors are such important contributors to the Malaysian economy. The need to increase the occupancy rates of current and planned hotels is necessary to generate a reasonable return on investment for the operators,

while tax revenue is essential to provide government with adequate income to pursue their development agendas. The public and private sector education and training establishments require a successful industry to maintain their financial viability. All of this is dependent on service levels that contribute to the development of a substantial repeat customer base. All of the stakeholders have the potential to gain from such a customer base and they all have a contribution to make to its realisation.

Consequently, the ability of the tourism and hospitality sector to make a significant contribution to the economic development of Malaysia will depend on there being a vigorous, successful and profitable market. Part of this depends on there being an appropriate balance between supply and demand for tourism and hospitality services. For Malaysia, to attract high net worth individuals as visitors requires a combination of available four and five star accommodation coupled with service levels that match the expectations of international travellers who are high net worth individuals. This research indicates that one of the impediments to achieving these standards may lie in the potential mismatch between supply and demand. The over provision of high specification facilities undermines the realisation of the government goals on two grounds. Firstly, it increases the demand for staff who are sufficiently experienced and trained to deliver services to the required standard, while, at the same time, causing hotel owners to cut prices and lower costs in order to gain some return on their investment. In view of this, the authorities may wish to consider their approach to hotel development proposals to ensure that there is a reasonable and profitable balance between supply and demand for four and five star facilities and services.

The researchers recognise, however, that there are limitations to the study. For example, the model was developed with input from a small, albeit important, group of stakeholders. Consequently, further research is recommended to gain the perspectives of employees on the veracity of the proposed model.

REFERENCES

- Annual Tourism Statistical Report, (2009) Kuala Lumpur: Malaysian Tourism Promotion Board.
- Arnett, B.D., Laverie, A.D. and McLane, C. (2002). Using Job Satisfaction and Pride as Internal Marketing Tools, *Cornell Hotel and Restaurant Administration Quarterly*, 43/2, 87.
- Berry, L.L. (1976). Improving Retailer Capability for Effective Consumerism Response, *Journal of Retailing*, 52/3, 3-14
- Berry, L.L. (1981). The Employee as Customer, *Journal of Retail Banking*, 3, March, pp25-8.
- Berry, L.L. and Parasurman, A. (1991). Marketing Services: Competing Through Quality, New York: The Free Press.
- Bowen, J., & Shoemaker, S. (2003). Loyalty: a Strategic Commitment', *Cornell and Restaurant and Administration Quarterly*, 44/5, 31-46.
- Breiter, D., and Bloomquist, P. (1998). TQM in American Hotels. *Cornell Hotel and Restaurant Administration Quarterly*, 2,26-34.
- Gounaris, S. (2008). The Notion of Internal Market Orientation and Employee Job Satisfaction: Some Preliminary Evidence. *Journal of Services Marketing*, 22/1, 68-90.
- Grönroos, C. (1983). Strategic Management and Marketing in the Service Sector: Developing customer Conscious Employees at Every Level. *Journal of Business Research*, 20, 63-70.
- Hemdi, A. M., & Nasrudin, M.A. (2005). Turnover Intentions of Malaysia Hotel Employees: The Role of Human Resource Management Practices and Trust in Organizations. *Asean journal on Hospitality and Tourism*, 4, 115-127.
- Heskett, J.L., Jones, T.O., Loveman, W.E. and Schlesinger, L.A. (1994). Putting the Service Profit Chain To Work. *Harvard Business Review*, March-April, 164-174.
- Kanji, G.K., and Asher, M. (1996). *100 Methods for Total Quality Management*, London, Sage Publications.

- Lashley, C. (1996). Research Issues for Employee Empowerment in Hospitality Organization. *International Journal of Hospitality*, 15/4. 12-25.
- Marshall, C and Rossman, G. 1995, *Designing Qualitative Research*, 2nd edn. Sage, Thousand Oaks.
- Minichiello, V. Aroni, R. Timewell, E. and Alexander, L. 1995, In *Depth Interviewing*, 2nd edn, Longman, Melbourne.
- Ministry of Finance, (2010). Economic Report 2009 / 2010 (1st Quarter and 2nd Quarter). Kuala Lumpur, Malaysia: Percetakan, Nasional Malaysia Berhad.
- O'Mahony, G. B., Sophonsiri, S., & Turner, L. W. 2013, The Impact of the Antecedents of Relationship Development on Thai and Australian Resort Hotels Guests. *International Journal of Hospitality Management*, 34, 214-226.
- Parasuraman, A., Berry, L.L. & Zeithaml, V.A. (1985). A Conceptual Model of Service Quality and its Implications for Future Research, *Journal of Marketing*, 49, 41-50.
- Pearlman, M.D., & Chacko, H. (2012). The Quest for Quality Improvement: Using Six Sigma at Starwood Hotels and Resorts. *International Journal of Hospitality and Tourism Administration*, 13/1, 48-66.
- Powell, C.T. (1995). Total Quality Management as Competitive Advantage: A Review and Empirical Study. *Strategic Management Journal*, 16, 15-37.
- Ravichandran, J. (2006). Six Sigma Milestone: An Overall Sigma Level of An Organization. *Total Quality Management & Business Excellence*, 17, 8, 901-18.
- Shamji, N. (2005). Six Sigma Basics. *Total Quality Management*, 16/5, 567-74.
- Sila, I. & Ebrahimpour, M. (2002). An Investigation Of The Total Quality Management Survey Based Research Published Between 1989 And 2000 A Literature Review. *International Journal of Quality & Reliability Management*, 19/7, 902-970.
- Spreitzer, G. M. (1995). Psychological Empowerment in the Workplace: Dimensions, Measurement and Validation. *Academy of Management Journal*, 38, 1442-1465.
- Sureshchandar, G.S., Rajendran, C., & Anantharam, R.N. (2001). A conceptual model for total quality management in service organization. *TQM management*. Vol. 12. No.3. pp.343-363.
- Thawani, S. (2004). Six Sigma-Strategy for Organizational Excellence. *Total Quality Management*, 15 No. 5/6, 655-64.
- Tourism Malaysia (2012). Tourism Report. Malaysian Tourism Promotion Board. Retrieved: 16/01/2013. www.corporate.tourism.gov.com.my.
- World Travel & Tourism (2012). *World Travel & Tourism Report*, Tourism Economic, Research.

THE EFFECT OF THE PERCEIVED RISK IN SOUTH KOREAN CONSUMERS' ACCEPTANCE OF THE CROWD-FUNDING

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ABSTRACT

Consumers' role in the markets has changed a lot over time with environmental change. From mere target for company's profit to co-creator of value, trends has shown an enrichment and empowerment of the role assigned to consumers. Consumers have recently begun to play a new role in some markets. The consumer's role has expanded to include investment support. This can be called crowd-funding. But crowd-funding is new phenomena and it is not fully understood. To explain this we employ structural equation modeling approach with crowd-funding initiatives. Results indicate that crowd-funding participants perceive some sources of risk in supporting. We hope this study become a basis for other related researches.

INTRODUCTION

While consumers have always had a special issue in the marketing study, the role in the markets has changed a lot over time with environmental change(Ordanini,Miceli,Pizzetti,Parasuraman, 2011). Basically Consumers make buying decisions every day. This means that consumers are mere target for company's sustainability. Then consumers became key information source in the "market orientation" literature which defines the business in terms of satisfying basic customer needs(Kohli and Jaworski, 1990). Consumers became smarter than old times and service industry also grew. Therefore some service marketing literature enlarged consumers' role as co-producers or co-creators of value(Vargo and Lusch, 2004). Over the years, this trends has shown an enrichment and empowerment of the role assigned to consumers. Last year there is an act that can affect consumers' role in the marketing. Jumpstart Our Business Startups Act , known as the JOBS Act enacted in April 2012. It is expected to revolutionize the crowd-funding industry.

Consumers have recently begun to play a new role in some markets. The consumer's role has expanded to include investment support. This, called crowd-funding, is a collective effort by people who network and pool their money together, usually via Internet, in order to invest in and support efforts initiated by other people or organization. This idea that consumers decide to pay for producing and promotion a product and bear the risk associated with that decision, represents a further step in the evolution of consumers' roles(Ordanini,Miceli,Pizzetti,Parasuraman, 2011).

But crowd-funding is new phenomena so it is not fully understood. Which antecedents affect the engagement of consumers as investor? What motivate consumers' investment? How the crowd-funding process work and its meaning of marketing strategy? Or how to implement crowd-funding as one of marketing strategies? Crowd-funding is usually happening by Internet. And nonetheless it is a rapidly growing field. But many surveys have reported that consumers concerned about Internet security. Also Internet fraud is another growing concern(Hassan,Kunz,Pearson,Mohamed, 2006). With the growth of crowd-funding we can think there are some obstacles which inhibit consumer's active participation.

To explain this issue, we employ a structural equation modeling approach associated with crowd-funding initiatives. First, we understand that perceived risk of crowd-funding is a multidimensional concept. We study the relationship between crowd-funding attitude and perceived risk such as economic risk, social risk, psychological risk, risk of time-loss, privacy risk, source risk. We also examine the relationship between the attitude and behavioral intention of crowd-funding. In order to carry out this research purposes, we conducted a survey of consumers from South Korea.

LITERATURE REVIEW

Crowd-funding

In South Korea, a recent movie named '26year' gathered more than 2million customers. It is interesting that more than hundreds of people participated in the investment of movie manufacturing. Also, a recent project at FundU raised 500,000 won for a group of over 70 year olds to teach them how to read and write. In return, a dozen anonymous supporters will get hand-written letters from the recipients. Another event aims to raise 50 million won to stage a concert for 20 to 30 year olds in an effort to inspire political interest among them. Sponsored by several celebrities including Korean rock band YB and comedian Kim Jae-dong, it brought in 11.58 million won from 70 donors within days(Koreatimes, 2012). Lots of projects were successfully launched by domestic crowdfuning sites. Crowd-funding refers to people choosing to raise money through the Internet to fund projects they want to succeed. Eventhough in Korea, the concept of crowd-funding is not widely accepted yet, currently about 12 local crowd- funding sites exist. Although the concept of getting a crowd to simply raise money for a cause or invest in local business is nothing new, the powerful Internet networking enable consumers to enlarge their role.

Some extant literature stream can help to understand crowd-funding. For example, literature related to donor behavior suggests that people who contribute to charitable causes are motivated by self-esteem, relief from feeling of guilt and obligation. Literature on brand community also suggests some aspects that relate to crowd-funding contexts(Hibbert and Horne, 1996; White and Peloza, 2009). In other viewpoint, brand community members are typically motivated by identification, status, and fun. But these literatures on these theories didn't capture the element of monetary support from users, which is a key characteristic of crowd-funding models. As initial study related to this area we consider perceived risk is one of major factors affect consumer's participation. Because crowd-funding is consumer's investment behavior, so spend money with considering its value.

Perceived risk

According to previous research if individuals perceive risk, they expect some kinds of loss. The development of theory of perceived risk in the context of consumer behavior began in 1960s. Since 1960, extensive consumer research showed that perceived risk affects consumers behavior across different cultures. The theory of consumers' perceived risk explains that consumers perceive risk because they face uncertainty and potentially undesirable consequences after purchasing. Therefore the more risk they perceive the less likely they will purchase. It can also be applied to crowd-funding. Perceived risk is powerful at explaining consumer's behavior because "Consumers are sometimes more motivated to avoid risk than maximize utility in purchasing". Perceived risks affect degree of consumer's business model adoption. For example, perceived risk was found to have a significant negative and direct effect on consumers' adoption of new internet service such as internet banking.

So for this research we adopted perceived risk terminology. This concept is highly related to financial consumer's behavior. A growing body of recent research has shown that consumer opinions, evaluations, and adoption intentions for new idea vary with the perceptions of risks. Moreover a solid stream of consumer behavior research acknowledges that, in order to reduce the effect of perceived risk, research must recognize and measure the effects of several types of risk. There are representative perceived risk types which are most popular in consumer behavior literature (Hassan,Kunz,Pearson,Mohamed, 2006; Lim, 2003) .

A general definition of perceived risk in marketing is "the nature and amount of risk perceived by a consumer in contemplating a particular purchase action". A review of past studies shows that researchers have identified the following dimensions(Lim, 2003).

1. Perceived financial risk is defined as concern over any financial loss that might be incurred because of decision behavior. Sometimes we can call this as economic risk. This explained the possibility of monetary loss arising from investing behavior. For example, even though they invest money and hope to have reward for that behavior, sometimes the product can be a failure or unsatisfactory products.

2. Perceived social risk associated with other people's opinions on the decision, resulting in possible disapproval by family or friends. This is concerned with individuals' perception of other people. It has ability that consumer's invest is not accepted by other society members.
3. Perceived psychological risk referring to the mental anxiety associated with a behavior. This is the possibility that individuals suffer mental stress because of their behavior. For example, consumers are likely to feel frustrated if their investment is unsuccessful.
4. Perceived time risk referring to the time loss associated with investment. In addition to searching time for appropriate Crow-funding idea, this dimension includes waiting time for Crow-funding idea actualization and commercialization.
5. Perceived source risk reflects concern over whether or not the consumer can trust the online Crow-funding project and feel comfortable in doing business with it. It is a general perception regarding the reliability of business model planner such as whether a company exists.
6. Perceived performance risk is the possibility that the business model does not work properly or can be obsolete only a short period of time.

Therefore summarizing at a macro level the theories examined above, it is logical to consider that in the initial stage of adoption of a new information business model, crowd-funding, when consumers have little knowledge of the crowd-funding, there may be opportunity factors that motivating users to adopt it, and barrier factors that making consumers dubious about the concept. As a basis research, this study will provide useful results to crowd-funding related marketers. It is important for researchers to identify influential factors to crowd-funding.

Although previous research show that perceived risk is an important factor for crowd-funding, there has been much concern about the relation between perceived risk and trust. Trust can be defined as a willingness to take risk and perceived risk is the likelihood of both positive and negative outcomes.

For this study we set basic approach in developing hypothesis. The hypothesis of this research is as follows:

H1: Dimensions of perceived risk have differential effects on Consumer's willingness to participation

METHOD

Theoretically, perceived risk must have strong relationship to consumer's behavior. Given the need for further empirical study on the crowd-funding, we conducted a survey. Despite its strategic importance, empirical study linking these two concepts has been lacking especially for its newness.

We recruited participants on the University through advertising on announcement board. Then we did scenario based survey. We developed and tested a model that investigates to find link about two construct with entertainment industry, film industry. Korean movies accounted for 58.8 percent of the market share here last year and the overall revenue of theaters, which included the sale of food and other non-ticket items, grew by 17.7 percent. Easy access to theaters is a major reason attributed to the increased audience numbers. In the past, people just visited theaters to see movies. Now they go there when they're shopping or dining. Theaters absorb people more easily as they draw closer to people's lives. With this era of Korean movie renaissance, a lot of film makers use crowd-funding as a promotional way or fund raising way.

At the survey, among other variables the survey measures (1) perceived risk (2) willingness to participate (3) former participation experience (4) involvement to film industry (5) some demographic information (6) how much invest for crowd-funding (7) expectation of reward

RESULT

In order to examine the proposed hypothesis, we used Partial Least Square(PLS) method to analyze data because it is more appropriate for complex models when the goal of the research is exploratory by

explaining variance. PLS is one of causal modeling approach. PLS analysis will be preferred when the emphasis is on prediction and theory development, as the statistical power of PLS is always larger than to that of other structural equation modeling methods(Reinartz, Haenlein, Henseler, 2009). It showed some interesting result about the relationship between constructs.

REFERENCES

- Cocosila, M., Archer, N., & Yuan Y.(2009), "Early Investigation of New Information Technology Acceptance : A Perceived Risk-Motivation Model", *Communications of AIS*, 25, 339-358.
- Hassan, A. M., Kunz, M. B., Pearson, A. W.,& Mohamed, F. A. (2006), "Conceptualization and measurement of perceived risk in online shopping", *Marketing Management Journal*, 16(1), 138-147.
- Hibbert, S. & Horne, S.(1996), "Giving to charity: questioning the donor decision process", *Journal of Consumer Marketing*, 13(2), 4-13.
- Kohli, A. K. & Jaworski, B. J. (1990), "Market Orientation : the construct, research proposition, and managerial implications", *Journal of Marketng*, 54(2), 1-18.
- Kreatimes(2012), Crowdfunding : how to take it to next level
- Lim, N.(2003),"Consumers' Perceived risk : source versus consequences", *Electronic Commerce Research and Applications*, 2, 216-228.
- Ordanini, A. , Miceli, L. , Pizzetti,M.,& Parasuraman, A.(2011), "Crowdfunding : Transforming Customers into Investors Through Innovative Service Platforms", *Journal of Service Management*, 22(4), 443-470.
- Reinartz, W. , Haenlein, M,& Henseler, J.(2009), "An empirical comparison of the efficacy of covariance-based and variance-based SEM", *International Journal of Research in Marketing*, 26, 332-344.
- Vargo, S. L. & Lusch, R. F.(2004), "Evolving to a new dominant logic for marketing", *Journal of Marketing*, 68(1), 1-17.
- White, K.& Peloza, J.(2009), "Self-benefit Versus Other-benefit Marketing Appeals : Their Effectiveness in Generating Charitable Support", *Journal of Marketing*, 73, 109-124.

A DECISION-MAKING MODEL FOR SELECTING NEW PRODUCT DEVELOPMENT PROJECTS

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ABSTRACT

Firms today are usually under a dynamically changing and fierce competitive environment. To survive in such an intensive competitive market, firms need to be innovative and to produce new products that can lead to future profits. Successful new product development (NPD) thus is essential for the survival of firms. A conceptual model is proposed to select the most appropriate projects for NPD. First, constraint programming (CP) is used to select the NPD project candidates. Fuzzy analytic network process (FANP) with fuzzy multiple objective programming (FMOP) is developed next to help select the best NPD projects under specific environments and constraints. A case study in a photovoltaic (PV) firm is presented to examine the practicality of the model. The proposed model is recommended for implementing NPD projects to achieve sustainable competitive advantage.

INTRODUCTION

Under a globally competitive business environment, an important source of competitive advantage, survival and renewal for firms is technological innovation. Since new products can contribute to new sales and profits, the success of new product development (NPD) is important to survive in the market (Lee *et al.*, 2010). However, the failure rate of NPD is very high. A firm's ability to exploit its current competencies or explore new capabilities thus becomes critical, and a good NPD management is essential for developing products successfully.

Even though there are abundant works on NPD, comprehensive frameworks for selecting NPD projects are limited. This research is to propose a conceptual decision-making model for selecting the most appropriate NPD projects. A model that incorporates constraint programming (CP), fuzzy analytic network process (FANP) and fuzzy multiple objective programming (FMOP) is constructed to help decision-makers select the most appropriate NPD set under an environment with limited resources. The proposed model shall provide guidance and recommendations for managers on what factors should be stressed in selecting NPD projects and how to select the most appropriate set of projects for development.

In order to promote environmental protection and to confront natural resource scarcity, more and more countries and firms are paying attention to solar energy, which depends on an infinite resource, the sun, as one of the most promising renewable energy sources. Current PV products, however, still suffer a large difficulty in high production cost with low PV conversion efficiency (Lee *et al.*, 2012). Thus, PV firms need to focus on effective R&D to improve product quality and to achieve economic scale for cost effectiveness. The proposed NPD selection framework is applied to a case study of a PV firm in Taiwan to help the management evaluate NPD projects.

The remainder of this paper is organized as follows. Section 2 introduces some methodologies. The construction of the NPD evaluation framework is presented in section 3. A case study of a PV firm is carried out in section 4. Some conclusion remarks are made in the last section.

METHODOLOGIES

Constraint Programming (CP)

A constraint satisfaction problem (CSP) is a mathematical problem defined by a set of variables whose states must satisfy a set of constraints (Kang, 2011). CSP is to find one or all assignments to the variables so that the assignment(s) satisfies all the constraints (Kumar, 1992). Constraint programming (CP) refers to the techniques that deal with constraint representation and exploitation (Trojet *et al.*, 2011). CP is generally carried out by reducing the domains, and the objective of the constraints is to replace an initial CSP by an equivalent CSP which has a more restricted research space (Tchertchian *et al.*, 2013). Effective CP models have been developed widely in various fields such as product design, machine design and manufacturing, computer vision, robot or agent planning, resource allocation, scheduling, human resources management, agronomy, diagnosis, etc. (Kang, 2011; Trojet *et al.*, 2011).

Fuzzy Analytic Network Process (FANP)

Analytic network process (ANP) generalizes analytic hierarchy process (AHP) by replacing hierarchies with networks, and it is the extension and a more general form of AHP (Saaty, 1996). ANP can still represent the relationships hierarchically if necessary; however, it does not require as strict a hierarchical structure as AHP (Meade and Presley, 2002). Under AHP, each element in the hierarchy is assumed to be independent. In many real cases, interdependence among elements is often existed. Therefore, ANP should be used under such circumstances. Fuzziness and vagueness are common characteristics in decision-making problems, and fuzzy set theory can be adopted to ANP, so-called FANP. FANP has been applied in many academic works in recent years.

Fuzzy Multiple Objective Programming (FMOP)

Multiple objective programming (MOP) is a popular decision making tool in a complex environment. An MOP can be developed when decision makers want to optimize two or more objectives simultaneously under various constraints (Kang and Lee, 2010). Various factors need to be included in the objective functions and the constraints when formulating a MOP; however, they are often imprecisely or ambiguously known. Thus, fuzzy multiple objective programming (FMOP) has been introduced, and different kinds of FMOP models have been proposed to solve different decision-making problems, which can involve fuzzy values in objective function parameters, constraints parameters, or objectives (Kang and Lee, 2010).

THE PROPOSED FRAMEWORK

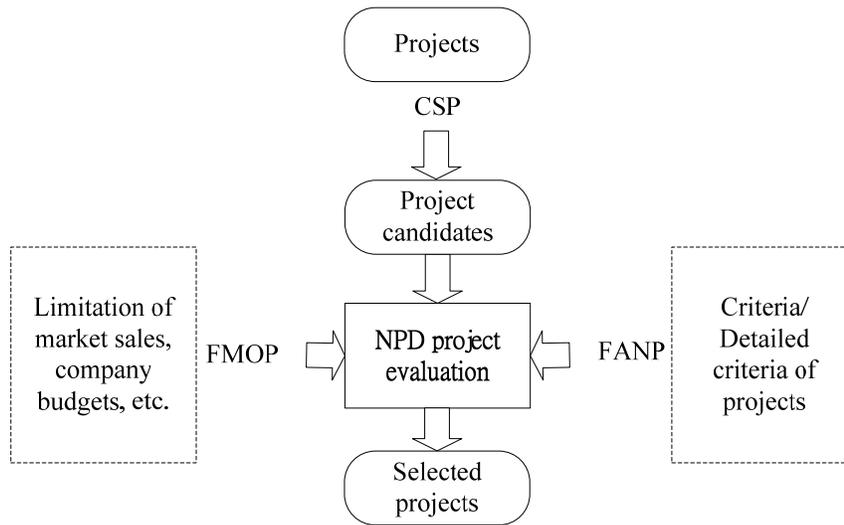
The steps of the proposed NPD project selection framework are as depicted in Figure 1 and are as follows:

1. Define the new product development project selection problem and collect NPD project candidates for the firm.
2. Apply constraint programming (CP) to select the NPD project candidates. Although there might be numerous potential projects, a firm cannot implement all the projects due to some constraints, such as technology capability and time. Therefore, CP is used to select the most probable projects for further analysis. Constraint satisfaction problems (CSP) are defined by a set of variables whose state must satisfy a set of constraints (Kang, 2011). The goal of CSP is to find one or more assignments to the variables so that the assignment(s) satisfy all the constraints (Kumar, 1992). A CSP is a triple (H'Mida and Vernadat, 2009; Kang, 2011):

$$(1) \quad (X, Y, \Phi)$$

where S is a finite set of variables $(x_1, x_2, \dots, x_n, \dots, x_N)$; Y is a set of functions $(y_1, y_2, \dots, y_n, \dots, y_N)$ which map every variable in X to a set of objects of arbitrary type. Each variable $x_n \in X$ has a nonempty domain $y_n \in Y$ which represent the set of all possible values for x_n ; Φ is a finite set of constraints $(\phi_1, \phi_2, \dots, \phi_j, \dots, \phi_J)$ on an arbitrary subset of variables in X .

Figure 1: The proposed model for NPD project selection



3. Construct a NPD project evaluation network with criteria, detailed criteria and alternatives. Experts are invited to contribute their professional experiences to verify the criteria and the detailed criteria. The alternatives are the NPD projects selected from step 2.
4. Pairwise compare the criteria. Experts are asked to pairwise compare the criteria using triangular fuzzy numbers, as shown in Table 1. With respect to the overall objective, a matrix (\tilde{A}_{1k}) for expert k is as follows:

$$(2) \quad \tilde{A}_{1k} = \begin{matrix} & C_1 & C_2 & \dots & C_i & C_j & \dots & C_m \\ \begin{matrix} C_1 \\ C_2 \\ \vdots \\ C_i \\ C_j \\ \vdots \\ C_m \end{matrix} & \begin{bmatrix} 1 & \tilde{a}_{12k} & \dots & \dots & \dots & \dots & \dots & \tilde{a}_{1mk} \\ 1/\tilde{a}_{12k} & 1 & \dots & \dots & \dots & \dots & \dots & \tilde{a}_{2mk} \\ \vdots & \vdots & \vdots & 1 & \dots & \dots & \dots & \dots \\ \vdots & \vdots & \vdots & \vdots & 1 & \tilde{a}_{ijk} & \dots & \dots \\ \vdots & \vdots & \vdots & 1/\tilde{a}_{ijk} & 1 & \dots & \dots & \dots \\ \dots & \dots & \dots & \dots & \dots & \dots & 1 & \dots \\ \dots & 1 \end{bmatrix} \end{matrix}$$

where m is the number of Cs.

Table 1: Characteristic function of the fuzzy numbers (Lee *et al.*, 2006)

Fuzzy number	Characteristic (Membership) function
$\tilde{1}$	(1, 1, 3)
\tilde{x}	($x - 2, x, x + 2$) for $x = 3, 5, 7$
$\tilde{9}$	(7, 9, 9)

5. Aggregate experts' opinions and build an aggregated pairwise comparison matrix. Geometric average approach is used to aggregate k experts' responses, and a synthetic triangular fuzzy number is obtained (Lee *et al.*, 2009):

$$(3) \quad \tilde{a}_{ij} = (\tilde{a}_{ij1} \otimes \tilde{a}_{ij2} \otimes \dots \otimes \tilde{a}_{ijk})^{1/k}$$

where $\tilde{a}_{ijk} = (l_{ijk}, t_{ijk}, u_{ijk})$

The fuzzy aggregated pairwise comparison matrix is:

$$(4) \quad \tilde{\mathbf{A}}_1 = \begin{bmatrix} 1 & \tilde{a}_{12} & \cdots & \cdots & \cdots & \cdots & \tilde{a}_{1j} \\ 1/\tilde{a}_{12} & 1 & \cdots & \cdots & \cdots & \cdots & \tilde{a}_{2j} \\ \vdots & \vdots & 1 & \cdots & \cdots & \cdots & \cdots \\ \vdots & \vdots & \vdots & 1 & \tilde{a}_{ij} & \cdots & \cdots \\ \vdots & \vdots & \vdots & 1/\tilde{a}_{ij} & 1 & \cdots & \cdots \\ \cdots & \cdots & \cdots & \cdots & \cdots & 1 & \cdots \\ 1/\tilde{a}_{1j} & 1/\tilde{a}_{2j} & \cdots & \cdots & \cdots & \cdots & 1 \end{bmatrix}$$

where $\tilde{a}_{ij} = (l_{ij}, t_{ij}, u_{ij})$

Then, the center of gravity (COG) method is adopted next to defuzzify the comparison between criteria i and j (Klir and Yuan, 1995):

$$(5) \quad a_{ij} = \frac{[(u_{ij} - l_{ij}) + (t_{ij} - l_{ij})]}{3} + l_{ij}$$

The defuzzified aggregated pairwise comparison matrix is:

$$(6) \quad \mathbf{A}_1 = \begin{bmatrix} 1 & a_{12} & \cdots & \cdots & \cdots & \cdots & a_{1j} \\ 1/a_{12} & 1 & \cdots & \cdots & \cdots & \cdots & a_{2j} \\ \vdots & \vdots & 1 & \cdots & \cdots & \cdots & \cdots \\ \vdots & \vdots & \vdots & 1 & a_{ij} & \cdots & \cdots \\ \vdots & \vdots & \vdots & 1/a_{ij} & 1 & \cdots & \cdots \\ \cdots & \cdots & \cdots & \cdots & \cdots & 1 & \cdots \\ 1/a_{1j} & 1/a_{2j} & \cdots & \cdots & \cdots & \cdots & 1 \end{bmatrix}$$

6. Calculate the priority vector of the defuzzified aggregated comparison matrix. A priority vector is derived for the defuzzified aggregated comparison matrix (Saaty, 1980, Saaty, 1996):

$$(7) \quad \mathbf{A}_1 \cdot w_1 = \lambda_{\max} \cdot w_1$$

where \mathbf{A}_1 is the defuzzified aggregated pairwise comparison matrix, w_1 is the eigenvector, and λ_{\max} is the largest eigenvalue of \mathbf{A}_1 .

7. Check the consistency of the defuzzified aggregated pairwise comparison matrix. The consistency property is examined by the consistency index (CI) and consistency ratio (CR) (Saaty, 1980):

$$(8) \quad CI = \frac{\lambda_{\max} - n}{n - 1}$$

$$(9) \quad CR = \frac{CI}{RI}$$

where n is the number of items being compared in the matrix, and RI is random index (Saaty, 1980). The threshold CR value is set at 0.10, and a CR value that exceeds the threshold indicates an inconsistent judgment. In such a case, experts need to revise the original values in the specific part of the questionnaire.

8. Calculate the priorities of detailed criteria with respect to their same upper-level criterion, the priorities of alternatives with respect to each detailed criterion, and the interdependence among the detailed criteria by applying a similar procedure as in Step 3 to Step 7.
9. Form an unweighted supermatrix and a weighted supermatrix. Use the priorities calculated from step 5 and 7 to construct an unweighted supermatrix. Transform the unweighted supermatrix to a weighted supermatrix to ensure column stochastic.
10. Calculate the limit supermatrix by taking the weighted supermatrix to powers so that the supermatrix converges into a stable supermatrix. Obtain the priority weights of the alternatives from the limit supermatrix.
11. Obtain the priorities of multiple goals. FMOP can be incorporated to consider other factors such as cost budget and limited resources. Similar steps from 4 to 7 are applied to calculate the priority weights of goals w_g and of alternatives (e_{gv}) with respect to each additional goal.
12. Formulate and solve the FMOP. The overall objective is to maximize the satisfaction of the model. The degrees of satisfaction for the objectives are $\lambda_1, \lambda_2, \dots, \lambda_g$, and w_g from Step 11 are the weights for λ_g . The FMOP model can be formulated as follows (Kang and Lee, 2010):

$$(10) \quad \text{Maximize } \lambda = w_1 \times \lambda_1 + w_2 \times \lambda_2 + \dots + w_g \times \lambda_g$$

$$(11) \quad \text{subject to } \lambda_g \leq \mu_g(x), \text{ for all } g$$

$$(12) \quad \lambda_g \in [0,1], \text{ for all } g$$

$$(13) \quad \text{Constraints}$$

where λ_g , $\mu_g(x)$ and w_g represent the degrees of satisfaction, membership functions and weights for objectives.

A CASE STUDY OF A PV FIRM IN TAIWAN

The depletion of fossil fuels and the gradually emerging consciousness about environmental protection have increased the use of renewable energy resources in the 21st century. Many environmental-friendly renewable energy resources such as hydraulic energy, wind energy, biomass energy, ocean energy and solar energy have received increasing attention, the rapid development in photovoltaic (PV) technology has made it the most promising alternative to conventional energy systems in recent years (Milliken *et al.*, 2007).

Taiwan has a strong background and foundation for developing the PV industry because of its successes in the semiconductor and TFT-LCD manufacturing industries. PV firms need to focus on effective R&D to improve product quality and to achieve economic scale for cost effectiveness in the global market (Lee *et al.*, 2012). Therefore, a well-designed NPD project evaluation and selection plan is necessary for a firm to improve its competitiveness.

In the case study, a PV firm, with limited resources, is considering to select a few NPD projects. In the first stage, CP is applied to select the NPD project candidates among numerous potential projects. A project can be a candidate only if a set of constraints is satisfied. The CP for NPD project selection is as follows:

$$(14) \quad \sum_i f_o(p_i) \times B_i \times O_i \geq Opp_i^{min}, \text{ for all } i$$

$$(15) \quad \sum_i f_c(p_i) \times B_i \times C_i \leq Cost_i^{max}, \text{ for all } i$$

$$(16) \quad \sum_i f_r(p_i) \times B_i \times R_i \leq Risk_i^{max}, \text{ for all } i$$

$$(17) \quad \sum_i f_t(p_i) \times B_i \times T_i \leq \text{Time}_i^{\max}, \text{ for all } i$$

$$(18) \quad B_i \in \{0,1\}, \text{ for all } i$$

where $f_o(p_i)$ is the opportunity function (technology function), $f_c(p_i)$ is the cost function, $f_r(p_i)$ is the risk function and $f_t(p_i)$ is the time function.

The data of the 20 potential projects are listed in Table 2, and the result of the CP shows that project 2, 5, 7, 8 and 10 should be selected. The selected project candidates will be further analyzed using FANP and FMOP, and the most appropriate projects can be selected as a result.

Table 2: Data of the 20 potential projects

Project	O_i	Opp_i^{\min}	C_i	$Cost_i^{\max}$	R_i	$Risk_i^{\max}$	T_i	$Time_i^{\max}$
$i=1$	1.25	12	12.3	350	0.69	3.50	65	100
$i=2$	1.59		16.3		0.25		59	
$i=3$	1.01		25.1		0.76		79	
$i=4$	0.96		13.6		0.45		103	
$i=5$	2.36		18.7		0.91		69	
$i=6$	1.25		16.3		0.38		55	
$i=7$	1.95		15.9		0.76		78	
$i=8$	1.69		19.3		0.49		56	
$i=9$	0.68		20.5		0.19		91	
$i=10$	2.12		18.9		0.68		66	

CONCLUSIONS

How to select the most appropriate products to develop in order to acquire the highest expected benefits for the firm is an important task. In this research, a framework that incorporates constraint programming (CP), fuzzy analytic network process (FANP) and fuzzy multiple objective programming (FMOP) is proposed for evaluating NPD projects. Through CP, NPD projects that satisfy the constraints can be selected first. FANP is then applied to consider various interdependent factors, and by aggregating experts' opinions, the priorities of the NPD project candidates can be generated. FMOP is finally applied to select the NPD projects for development. The proposed framework is examined by a case study in a PV firm in Taiwan. In the future, a complete case study will be carried out.

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REFERENCES

- Chung, S.H., Lee, A.H.I. & Pearn, W.L. (2005). Analytic Network Process (ANP) Approach for Product Mix Planning in Semiconductor Fabricator. *International Journal of Production Economics*, 96(1), 15-36.
- H'Mida, F., & Vernadat, F. (2009). A Constraint Approach (Flexible CSP) for Alternative Cost Estimation of a Mechanical Product. *International Journal of Production Research*, 47(2), 305-320.
- Kang, H.Y. (2011) A Multi-Criteria Decision-Making Approach for Capacity Allocation Problem in Semiconductor Fabrication. *International Journal of Production Research*, 49(19), 5893-5916.
- Kang, H.Y., & Lee, A.H.I. (2010). Inventory Replenishment Model Using Fuzzy Multiple Objective Programming: A Case Study of a High-Tech Company in Taiwan. *Applied Soft Computing*, 10, 1108-1118.
- Klir, G.I., & Yuan, B. (1995). *Fuzzy Sets and Fuzzy Logic: Theory and Applications*. Prentice-Hall

International, London.

Kumar, V. (1992). Algorithms for Constraint-Satisfaction Problems: A Survey. *AI Magazine*, 13(1), 32-44.

Lee, A.H.I., Kang, H.Y., & Chang, C.T. (2009). Fuzzy Multiple Goal Programming Applied to TFT-LCD Supplier Selection by Downstream Manufacturers. *Expert Systems with Applications*, 36, 6318-6325.

Lee, A.H.I., Kang H.Y., Yang C.Y., & Lin C.Y. (2010). An Evaluation Framework for Product Planning Using FANP, QFD and Multi-Choice Goal Programming. *International Journal of Production Research*, 48(13), 3977-3997.

Lee, A.H.I., Kang H.Y., & Wang, W.P. (2006). Analysis of Priority Mix Planning for Semiconductor Fabrication under Uncertainty. *International Journal of Advanced Manufacturing Technology*, 28(3-4), 351-361.

Lee, A.H.I., Lin, C.Y, Kang, H.Y. & Lee, W.H. (2012). An Integrated Performance Evaluation Model for Photovoltaics Industry. *Energies*, 5(4), 1271-1291.

Lee, A.H.I., Wang, W.M. & Lin, T.Y. (2010). An Evaluation Framework for Technology Transfer of New Equipment in High Technology Industry. *Technological Forecasting and Social Change*, 77, 135-150.

Meade, L.M., & Presley, A. (2002). R&D Project Selection Using the Analytic Network Process. *IEEE Transactions on Engineering Management*, 49(1), 59-66.

Milliken, J., Joseck, F., Wang, M., & Yuzugullu, E. (2007). The Advanced Energy Initiative. *Journal of Power Sources*, 172, 121-131.

Saaty, T.L. (1996). *Decision Making with Dependence and Feedback: The Analytic Network Process*. RWS Publications, Pittsburgh.

Saaty, T.L. (1980). *The Analytic Hierarchy Process*. McGraw-Hill, New York.

Tchertchian, N., Yvars, P.A., & Millet, D. (2013). Benefits and Limits of a Constraint Satisfaction Problem/Life Cycle Assessment Approach for the Ecodesign of Complex Systems: A Case Applied to a Hybrid Passenger Ferry. *Journal of Cleaner Production*, 42, 1-18.

Trojet, M., H'Mida, F., & Lopez, P. (2011). Project Scheduling Under Resource Constraints: Application of the Cumulative Global Constraint in a Decision Support Framework. *Computers and Industrial Engineering*, 61(2), 357-363.

Wikipedia, (2013). *Solar Cell*. http://en.wikipedia.org/wiki/Solar_cell.

CYBERNETIC ID-CRIME MANIFESTATION: VISUALIZING THE USE OF ILLEGITIMATE TECHNOLOGY – FUTURISTIC PERSPECTIVE

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ABSTRACT

Although one-man businesses should also use bank facilities to withdraw money from their bank accounts like any other business, it still makes a lot of real sense when they use bank cards for their cash withdrawals. Despite all efforts taken when establishing these businesses to avoid legal risks, there is still much out there [financial risks] to look out for to protect their cash when effecting deposits and withdrawals using black stripped bank cards. This paper provides some guidelines as strategies tailor-made to help these small businesses minimising cybernetic ID crime to affect their cash flow. In order to achieve this, namely, to evade this kind of crime, this paper will then provide some guidelines as strategies befitting small businesses to rather circumvent the blow of the said crime. Looking into their future development, these small businesses should also take cognisance of what the South African law actually says to protect them from this particular crime. Questions now arising here are: what is this illegitimate technology spoken about and how is it being used to perpetrate cybernetic ID crime? How would this crime eventually be averted by small businesses avoiding an interruption the process of future business development in terms of cash flow?

INTRODUCTION

There exists a practice within small businesses where a messenger employee is sent to the bank with a load of money to deposit in the bank account of the business. These businesses are those amongst which are still in their infant stages of development and do not have safety facilities of depositing cash into their bank accounts. Besides, the cash to be deposited does not warrant any mobile cash transit facility like the macro businesses have. When small businesses send someone [employee] to do this, criminals can spot them at ease at any time when transacting in one way or the other (Neves, 2009). Criminals are able to copy information illegally from the magnetic strip [black strip] on the back of the bank card and use this information to steal money (Giles, 2010). The device used to copy the information is called a skimming device. Skimming devices can either be handheld or mounted onto an ATM. A later study by Carnegie Mellon University noted that "Most often than not, the causes of identity theft is not known," but reported that someone else concluded that "the probability of becoming a victim to identity theft as a result of a data breach is ... around only 2%" (Williams, 2009).

Identity theft is a form of stealing someone's identity in which someone pretends to be someone else by assuming that person's identity, typically in order to access resources or obtain credit and other benefits in that person's name (OEDO, 2007). The victim of identity theft (here meaning the person whose identity has been assumed by the identity thief) can suffer adverse consequences if they are held accountable for the perpetrator's actions (Campana, 2006). Identity theft occurs when someone uses your personally identifying information, like your name, social security number, or credit card number, without your permission, to commit fraud or other crimes (Giles, 2010). Questions to be addresses are: what is this technology and how is it being used to perpetrate cybernetic ID crime? How would this crime eventually be averted by small businesses avoiding an interruption on the process of future business development in terms of cash flow?

METHODOLOGY

This paper has identified two areas of immediate concern mostly falling victims of the said crime, namely private individuals and small businesses. Regarding small businesses, the aim will essentially be to provide preventative measures that will enhance their future development. Regarding private individuals, the guidelines will provide individual protection including their business interests (Armenakis and Harris, 2002). In answering the above questions, first, the paper will be descriptive and will adopt a qualitative paradigm (Corbin and Strauss, 2008). As mentioned earlier, it will essentially provide some guidelines as strategies befitting small businesses to circumvent the blow of the said crime. These guidelines will also be specifically aimed for protection by small businesses looking into regional legal responses internationally. These guidelines will thus be meaningful in benefiting identity protection of individuals out there. In achieving the objective of the study, the investigation will utilise the aid of organised print literature, but empirically, a survey will be conducted from the local banks where snap interviews will be conducted albeit with ethical considerations (Olivier, 2009). In this way, the results will most certainly clearly illuminate the problem (Foreman, 2009) brought about by the use of illicit technology through legislative protectionism (Barratt and Snyman, 2005) that will be interpreted and analysed. The paper will bring down findings from case study and provide some recommendations as will be evident from the conclusion.

THEORETICAL UNDERPINNINGS

Individual Identity Protection

The acquisition of personal identifiers is made possible through serious breaches of privacy. For consumers, this is usually a result of them naively providing their personal information or log-in credentials to the identity thieves as a result of being duped but identity-related documents such as credit cards, bank statements, utility bills, checkbooks etc. may also be physically stolen from vehicles, homes and offices, or directly from victims by pickpockets and bag snatchers (Crime Watch SA, 2012). Guardianship of personal identifiers by consumers is the most common intervention strategy recommended by the US Federal Trade Commission, Canadian Phone Busters and most sites that address identity theft (FTC, 2006). Such organizations offer recommendations on how individuals can prevent their information falling into the wrong hands. Identity theft can be partially mitigated by *not* identifying oneself unnecessarily (a form of information security control known as risk avoidance). This implies that organizations, IT systems and procedures should not demand excessive amounts of personal information or credentials for identification and authentication (Williams, 2009). Requiring, storing and processing personal identifiers (such as Social Security number, national identification number, drivers license number, credit card number, etc.) increases the risks of identity theft unless this valuable personal information is adequately secured at all times. To protect themselves against electronic identity theft by phishing, hacking or malware, individuals are well advised to maintain computer security, for example by keeping their operating systems and web browser security fully patched against known security vulnerabilities, running antivirus software and being cautious in their use of IT. Identity thieves sometimes impersonate dead people, using personal information obtained from death notices, gravestones and other sources to exploit delays between the death and the closure of the person's accounts, the inattentiveness of grieving families and weaknesses in the processes for credit-checking (Foreman, 2009). Such crimes may continue for some time until the deceased's families or the authorities notice and react to anomalies. In recent years, commercial identity theft protection/insurance services have become available in many countries. These services purport to help protect the individual from identity theft or help detect that identity theft has occurred in exchange for a monthly or annual membership fee or premium. The services typically work either by setting fraud alerts on the individual's credit files with the three major credit bureaus or by setting up credit report monitoring with the credit bureaus. While identity theft protection/insurance services have been heavily marketed, their value has been called into question.

Identity Protection by Organizations

In their May 1998 testimony before the United States Senate, the Federal Trade Commission (FTC) discussed the sale of Social Security numbers and other personal identifiers by credit-raters and data miners. The FTC agreed to the industry's self-regulating principles restricting access to information on credit reports. According to the industry, the restrictions vary according to the category of customer. Credit reporting agencies gather and disclose personal and credit information to a wide business client base (Wikipedia, 2009). Poor stewardship of personal data by organizations, resulting in unauthorized access to sensitive data, can expose individuals to the risk of identity theft (Campana, 2006). The Privacy Rights Clearinghouse has documented over 900 individual data breaches by US companies and government agencies since January

2005, which together have involved over 200 million total records containing sensitive personal information, many containing social security numbers. Poor corporate diligence standards which can result in data breaches include:

- failure to shred confidential information before throwing it into dumpsters;
- failure to ensure adequate network security;
- credit card numbers stolen by call centre agents and people with access to call recordings;
- the theft of laptop computers or portable media being carried off-site containing vast amounts of personal information. The use of strong encryption on these devices can reduce the chance of data being misused should a criminal obtain them;
- the brokerage of personal information to other businesses without ensuring that the purchaser maintains adequate security controls;
- Failure of governments, when registering sole proprietorships, partnerships, and corporations, to determine if the officers listed in the Articles of Incorporation are who they say they are. This potentially allows criminals access to personal information through credit rating and data mining services.

The failure of corporate or government organizations to protect consumer privacy, client confidentiality and political privacy has been criticized for facilitating the acquisition of personal identifiers by criminals. Using various types of biometric information, such as fingerprints, for identification and authentication has been cited as a way to thwart identity thieves, however there are technological limitations and privacy concerns associated with these methods as well (TISN, 2009).

Regional Legal Responses

South Africa

- Section 85 of the ECT Act read with s 86 criminalises the unlawful possession of and utilisation of these devices. Anyone found in unlawful possession of any of such devices can be prosecuted and be sentenced to an imprisonment or receive a fine.
- Section 15(1) and s 47(A)(!) read with s 80(1)(a) and 83(b) of the Custom and Exercise Act 91 of 1964 stipulate that anyone found being in possession of or who purchases or sells (s 102(1)), imports (38(1) read with s 39 and s 40) or exports such devices can be prosecuted and sentenced to prison.
- Section 155(2)(A) of the Criminal Procedure Act 51 of 1977 stipulates that a receiver of property obtained by means of an offence will be deemed to be a part in the offence in question.
- Criminal charges of aiding/abetting an accessory after the fact can also be brought against any person who helps in the illegal copying of card information.

United Kingdom

In the United Kingdom personal data is protected by the Data Protection Act 1998. The Act covers all personal data which an organization may hold, including names, birthday and anniversary dates, addresses, telephone numbers, etc. Under English law (which extends to Wales but not necessarily to Northern Ireland or Scotland), the deception offences under the Theft Act 1968 increasingly contend with identity theft situations. In *R v Seward* (2005) EWCA Crim 1941 the defendant was acting as the "front man" in the use of stolen credit cards and other documents to obtain goods. He obtained goods to the value of £10,000 for others who are unlikely ever to be identified. The Court of Appeal considered sentencing policy for deception offenses involving "identity theft" and concluded that a prison sentence was required. Henriques J said at para 14: "Identity fraud is a particularly pernicious and prevalent form of dishonesty calling for, in our judgment, deterrent sentences."

Increasingly, organizations, including Government bodies will be forced to take steps to better protect their users' data. Stats released by CIFAS - The UK's Fraud Prevention Service show that there were 89,000 victims of identity theft in the UK 2010. This compared with 2009 where there were 85,000 victims. Men in their 30s and 40s are the most common UK victims and identity fraud now accounts for nearly half of all frauds recorded.

United States

The increase in crimes of identity theft led to the drafting of the Identity Theft and Assumption Deterrence Act. In 1998, The Federal Trade Commission appeared before the United States Senate. The FTC discussed crimes which exploit consumer credit to commit loan fraud, mortgage fraud, lines-of-credit fraud, credit card fraud, commodities and services frauds. The Identity Theft Deterrence Act (2003) [ITADA] amended U.S. Code Title 18, § 1028 ("Fraud related to activity in connection with identification documents, authentication features, and information"). The statute now makes the possession of any "means of identification" to "knowingly transfer, possess, or use without lawful authority" a federal crime, alongside unlawful possession of identification documents. However, for federal jurisdiction to prosecute, the crime must include an "identification document" that either: (a) is purportedly issued by the United States, (b) is used or intended to defraud the United States, (c) is sent through the mail, or (d) is used in a manner that affects interstate or foreign commerce. *See* 18 U.S.C. § 1028(c). Punishment can be up to 5, 15, 20, or 30 years in federal prison, plus fines, depending on the underlying crime per 18 U.S.C. § 1028(b). In addition, punishments for the unlawful use of a "means of identification" were strengthened in § 1028A ("Aggravated Identity Theft"), allowing for a consecutive sentence under specific enumerated felony violations as defined in § 1028A(c)(1) through (11). The Act also provides the Federal Trade Commission with authority to track the number of incidents and the dollar value of losses. Their figures relate mainly to consumer financial crimes and not the broader range of all identification-based crimes. If charges are brought by state or local law enforcement agencies, different penalties apply depending on the state.

Structured Survey Conducted in Manhattan, USA in July 2012

This survey showed a decrease in the total number of victims and a decrease in the total value of identity fraud from US\$47.6 billion in 2003 to \$15.6 billion in 2006. The average fraud per person decreased from \$4,789 in 2003 to \$1,882 in 2006.

The 2003 survey from the Identity Theft Resource Centre found that:

- Only 15% of victims find out about the theft through proactive action taken by a business;
- The average time spent by victims resolving the problem is about 330 hours;
- 73% of respondents indicated the crime involved the thief acquiring a credit card

In a widely publicized account, Michelle Brown, a victim of identity fraud, testified before a U.S. Senate Committee Hearing on Identity Theft. Ms. Brown testified that: "over a year and a half from January 1998 through July 1999, one individual impersonated her to procure over \$50,000 in goods and services. Not only did she damage my credit, but she escalated her crimes to a level that I never truly expected: she engaged in drug trafficking. The crime resulted in my erroneous arrest record, a warrant out for my arrest, and eventually, a prison record when she was booked under my name as an inmate in the Chicago Federal Prison." In Australia, identity theft was estimated to be worth between AU\$1 billion and AU\$4 billion per annum in 2001. It is here where it was indicated that in the United Kingdom the Home Office reported that identity fraud costs the UK economy £1.2 billion annually (experts believe that the real figure could be much higher) although privacy groups object to the validity of these numbers, arguing that they are being used by the government to push for introduction of national ID cards.

IMPLICATIONS FOR MANAGEMENT PRACTITIONERS

When a crook uses one's good name to commit fraud or robbery, the impact on one's reputation, employability, and credit is severe and can last for years. One may even find oneself arrested for crimes one did not commit. So it's important to protect one against identity thieves. The telltale signs that one's identity has been stolen can be subtle and go unnoticed for months, even years. Inexplicable charges on one credit card bill may be chalked up to clerical errors. Letters from creditors one have never heard of and certainly never did business with may be ignored. But eventually, an enormous credit card bill, legal papers or police show up at one's door. You are denied a mortgage or a job. Then the real nightmare of proving "I didn't do it" begins.

General Dishonesty

(3) A person is guilty of an offence if: a) the person does anything with the intention of dishonestly *causing a loss to another person*; and b) the other person is a Commonwealth entity. Penalty: *Imprisonment for 5 years*. Likewise, each state has enacted their own privacy laws to prevent misuse of personal information and data. The Commonwealth *Privacy Act* is applicable only to Commonwealth and territory agencies and to

certain private sector bodies (where for example they deal with sensitive records, such as medical records, or they have more than \$3 million turnover PA).

SUGGESTED RECOMMENDATIONS

Anyone who finds any strange device on an ATM or know of person(s) in possession of such a device or devices should immediately contact the police near that area. It can be maddeningly difficult to clear your name, costing hundreds of hours and thousands of money loss (Fick, 2009). That's why it's important to take steps NOW to make it as difficult as possible for a scammer to victimize you. Take action on these ten tips as soon as possible, and you'll tip the scales in your favour:

- Check your credit report on a regular basis, to see if there is any incorrect information, or accounts you don't recognize. My article [Free Credit Reports Online](#) explains how U.S. citizens can get three free credit reports per year.
- Shred your sensitive personal documents before throwing them away. A battery-powered cross-cut shredder can render your banking and credit card information unreadable and costs less than \$30. "Dumpster diving" is a favourite, low-tech way by which ID thieves collect bank statements, credit card numbers, Social Security Numbers, and other bits of your identity from your trash.
- Be wary of telephone solicitors asking for personal or financial information to "verify your identity." Common scams involve someone who claims to be from your bank or credit card Company, claiming that there is a problem with your account. If you did not initiate the call, hang up and call the toll-free number on your statement, then ask for the security department.
- Keep important documents, such as tax returns, birth certificates, social security cards, passports, life insurance policies and financial statements secure in your home. A fireproof safe is a good idea, but remember to bolt it to the floor or hide it well.
- Make sure no one is looking over your shoulder when you enter your debit card's PIN at an ATM or point-of-sale terminal. I recommend the "two finger method" where you point two fingers at the ATM keypad, but only press with one. This makes it nearly impossible for someone nearby to discern your PIN while you're entering it.
- Memorize PINs, account numbers, and passwords; do not write them down. And for heaven's sake, do not put such data on scraps of paper kept in your wallet, purse, or laptop case!
- Get blank checks delivered to your bank branch, not to your home mailbox from which they may be stolen. On a similar note, eliminate junk mail which may contain "convenience checks" and credit card offers that can also be intercepted from your mailbox. Visit the [Privacy Rights Clearinghouse](#) and [OptOut Prescreen](#) for help eliminating these dangerous nuisances.
- When you order a new credit or debit card, mark the calendar and follow up promptly if it does not arrive within 10 business days. Ask the card issuer if a change of address request was filed, and if you didn't do it, hit the panic button.
- Don't give your Social Security Number to any business just because they need a "unique identifier" for you. Instead, ask if you can provide alternate proofs of identity, such as your driver's license or birth certificate.

Consider placing Fraud Alerts with the major credit bureaus, so new accounts cannot be opened without your knowledge. Call Equifax, and they will pass along the request to both Experian and Trans Union. Fraud alerts expire after 90 days, so you can repeat the process quarterly, or lock down your credit file with a Credit Freeze. A freeze is permanent and free (in most U.S. states) but it may interfere with loans applications, employment screening, signing up for utility or phone service, new insurance policies, and other transactions. You'll also need to contact each credit bureau (Equifax, Experian, and Trans Union) to request the credit freeze.

FINDINGS

Confusion over exactly what constitutes identity theft has led to claims that statistics may be exaggerated. An extensively reported study from Microsoft Research in 2011 found that estimates of identity theft losses contain enormous exaggerations, writing that surveys "are so compromised and biased that no faith whatever can be placed in their findings." This paper finds that because of the lack of adequate knowledge by our courts as to exact punishment to be meted for perpetration of this crime SECTION 66C of the Indian Information Technology Act 2000 Chapter IX provides that:

Whoever, fraudulently or dishonestly makes use of the electronic signature, password or any other unique identification feature of any other person, shall be punished with imprisonment of either

description for a term which may extend to three years and shall also be liable to fine with may extend to rupees one lakh.

The law courts can thus safely be guided from now on by this section in order to attach *ratio decidendi* in delivering a sentence based on cybernetic ID crimes committed.

CONCLUSION

This paper aimed to show that prevention is better than prosecution. Devoting time and resources to implement strategies that make it difficult for criminals to perpetrate their crimes within organisations is more efficient and cost effective than trying to catch them after you had been the victim of a cyber attack. And in the unlikely event that you do fall victim to cyber crime and you have the right strategy and systems in place, you would also have a disaster recovery plan in place that enables the organisation to effectively and efficiently deal with the consequences of an attack, an audit trail that can point your investigation in the right direction and evidentiary material available that could stand the scrutiny of a court. Catching and eventually prosecuting cyber criminals are difficult and costly, both in terms of money, time and resources. For businesses and government alike the reputational damage attached to a cyber attack can also be costly.

REFERENCES

- Armenakis, A. A. & Harris, S. G. (2002). Crafting a Change Message to Create Transformational Readiness. *Journal of Organizational Change Management*. 15, 2: pp. 169-183.
- Barratt, A. & Snyman, P. (2005). Researching South African Law, *South African Law Journal*.
- Campana, J. (2006). Identity Theft: More than Account Fraud: What Everyone Should Know (April, 2006), <http://www.jcampana.com>, [Retrieved October 03, 2012]
- Corbin, J. & Strauss, A. (2008). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*. Sage, Thousand Oakes, Ca.
- Crime Watch Report South Africa, Release 2012. A Report Released on the Rate and Statistics of Crime Rate in South Africa.
- Federal Trade Commission (FTC) – (2006) Identity Theft Survey Report, p.4.
- Fick, J. (2009). Prevention is better than Prosecution: Deepening the Defence against Cyber Crime. *Lex Informatica 2009: South Africa Cyberlaw and ICT Conference*, Johannesburg, South Africa. July 22-24, 2009.
- Foreman, M. (2009). Combating Terrorist Financing and Other Financial Crimes through Private Sector Partnerships, <http://www.emeraldinsight.com/1368-5201.htm>, accessed on 03/03/2009.
- Giles, J. (2010). Cyber Crime Made Easy. *New Scientist*, 205.2752 (2010): 20-21. *Academic Search Premier*. EBSCO. Web. 3 Oct. 2010.
- Lüders, S. (2006). A 'Defence-in-Depth' Strategy to Protect CERN's Control Systems (09/02/2009), <http://cerncourier.com/cws/article/cnl/24162> [Retrieved September 28, 2012].
- Neves, P. (2009). Readiness for Change: Contribution for Employee's Level of Individual Change and Turnover Intentions. *Journal of Change Management*. 9, 2: pp. 215-231.
- Olivier, M. S. (2009). *Information Technology Research: a Practical Guide for Computer Science and Informatics 3ed Ed*. Van Schaik Publishers.
- Oxford English Dictionary Online [OEDO]. (2007). Oxford University Press. September 2007. <http://dictionary.oed.com/cgi/entry/50111220/50111220se23R> [Retrieved September 27, 2010].
- Trusted Information Sharing Network for Critical Infrastructure Protection (TISN) (2009), Defence in Depth: Summary Report for CIO's and CSO's, (June 2008), <http://www.tisn.gov.au> [Retrieved September 25, 2012].

Wikipedia, (2009). Information Assurance, http://en.wikipedia.org/wiki/Information_assurance, accessed on 18/06/2009.

Williams, P. (2009). Organised Crime and Cyber-crime: Implications for Business, <http://www.cert.org/archive/pdf/cybercrime-business.pdf>. [Retrieved October 03, 2012]

INSTITUTIONAL MECHANISM OF THE INNOVATION DEVELOPMENT OF RUSSIAN ECONOMY

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ABSTRACT

The current status of the Russian economy, its role in the international division of labor and status of innovational potential leave much to be desired. Overcoming of these negative tendencies is possible only under activation and development of venture innovative activity, creation of new forms of innovative infrastructure. An innovative type of development involves variation and updating of forms of activities in accordance with shifts in the technological base, values, stereotypes of the production and consumer behavior in society and business entities, with any changes in the socio-economic system and its links with the outside world.

INTRODUCTION

The institutional structure of society while creating, regulating, organizing and controlling the various social processes, provides solutions to emerging problems in a systematic manner. The completeness and maturity of the system determines the orientation of social institutions and the stability of society. Since the latter is in a state of a constant change, then the institutional structure is transforming, where some institutions emerge, others die off, their functions, context, form, content, location and role in the system of social relations are changing.

The authors define the institutions – both developed formal (laws, constitutions) and informal (contracts and voluntarily adopted codes of conduct) restrictions, as well as coercive factors that structure their interactions. Together they form the incentive structure of societies and economies. Institutional development of the economy is also influenced by the interaction between institutions and organizations, when first determine the "rules", while the latter are the "players". Based on the above definitions, the author defines the institutional mechanism as a set of methods and means of influence on the institutions, their management and development.

In the economic terms we can define institutional mechanisms at the macro, micro and meso levels. From the standpoint of the structure of the economic mechanism, the integrity of the institutional mechanism is provided by stable relations of its individual elements. The structure will be characterized, first, by the presence of connection of the formation, operation, adjustment and implementation of institutional constraints in the economy, and secondly, by the time sequence of their implementation, in third, by a set of feedback loops that have a stabilizing effect.

VENTURE CICLE

It can be argued that the wider the range of institutions, the higher the rate of new transactions, the more options for development due to a variety of areas of selection decisions. Mobility of the institutional system, its flexibility and ability to respond to evolutionary change provides an opportunity for the development of economy and society as a whole, and promotes this development and directs it, to create favorable conditions for the formation of new structural units of the market.

Venture enterprise, despite it doesn't have a great history allows us to analyze the major trends that show its development cycle and the role of government in enhancing the venture business. Venture cycle in

its development goes through four stages: fundraising – finding the venture enterprise or project – realization of the project - exit out of business.

There are several reasons why the venture capital cycle may falter, or it may not be fully completed. In the first stage it may be the lack of funds or lack of attractiveness of venture financing. In the second stage it is insufficient development of the scientific environment, not generating innovative projects or lack of information on the availability of such projects. In the third stage the lack of a sufficient number of innovative management and heavy tax burden, not allowing venture capital firms to grow and be successful. On the fourth stage the problem is in underdeveloped stock market and mechanisms of intellectual property protection, etc.

At a time when there is no transition from one stage to another in the venture cycle, there is "marking time" or a complete cessation of the project, government regulation may contribute to the consistent and timely implementation of the venture capital cycle, which is based on its specific role in the innovation economy. The authors believe that this is due to:

1. Lack of investment in research and development. Markets do not have sufficient degree of information security. If there is no intellectual property protection, you can not sell the information on the open market, as any buyer can reproduce and resell the goods at low prices. Moreover, the potential buyer can determine the value of information only after receiving the goods, then he has no incentive to pay for this information.

2. Information obtained from R&D, can now be assigned to only partially. Thus, in the absence of effective information market, companies, focused on profits, invest in R&D less than necessary. To remedy this situation, the government should support R&D, especially basic research at universities, research institutes and enterprises.

3. Coordination between the participants of the innovation system. The effectiveness of the innovation system depends on the relations between enterprises, research institutes, universities, development institutes and government agencies. At the same time, institutions and individuals who work there may have very different priorities, which may hinder cooperation. If the differences in priorities are sufficient to reduce the long-term effectiveness of the innovation system, a system error occurs. Here, the government can contribute by creating incentives that promote the movement of knowledge between organizations in different phases of the innovation process, thus reducing system failures in the commercialization of new technologies. In this regard, the government should provide funding based on their chosen priorities of innovational development of economy.

4. Inertness of innovational systems. Institutional change is based primarily on the extensive adjustments, while the external stimuli may trigger a more rapid change. When the development of innovation systems is constrained at the level of institutions and organizations, government intervention can stimulate new ways of development. Thus, innovation policy can contribute to greater flexibility in the R&D and its development.

5. Lack of comprehensive information on prospective studies.

It is difficult and expensive for market participant to obtain information on promising areas of business development. But even if he has information, he may decide that it is unprofitable to use it, or considers it has mistakes. In this situation, it is the state, having a community of independent experts, based on the trends of the market should determine the long-term trends in public investment in innovation. But private capital, if it agrees with the direction of investments of the state may participate in joint investment or to invest in those independent innovations, which are considered as promising.

Thus, we can assume that without state influence on the development of venture businesses, it will continue to be a subject to severe fluctuations. The role of the state is to smooth out these fluctuations. It should play a major role during the recession and weaken its influence in the growth period. Should be designed public policies of the venture business, based on the goals and strategies of innovational development of economy.

"FIVE-FACTOR MODEL"

The author's study shows lack of availability of only three factors, such as government, business and universities, for an effective innovational economy. The development of venture business is possible only in the presence of innovative ideas that should be generated based on the high level of education. Therefore, the development of venture business model is, in author's opinion, should consist of five elements that define the institutional framework of venture businesses:

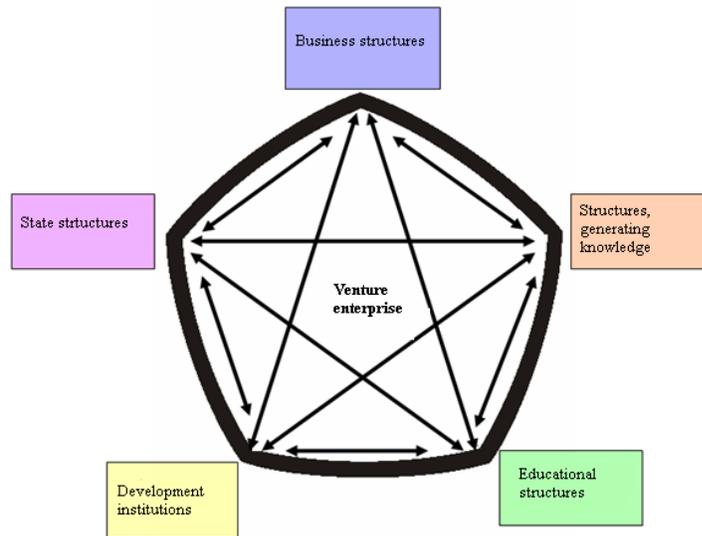


Figure 1. "Five-factor model" of innovational development of the Russian economics in the area of venture business.

1. The state which is an active participant in the innovative development and determines the rules of the game on the market, but also regulates the implementation of these rules, as well as funding research and development.
2. Infrastructure of the venture entrepreneurship which represent the non-financial development institutions, which are created to overcome market failures and stimulate the development of venture businesses.
3. Institute of education in the development of venture business should include all levels of training of various specialists, able to generate further knowledge and professionals who can manage innovation.
4. Institutional structures that are designed to generate ideas for their implementation by venture entrepreneurs.
5. A business that implements these ideas into real products.

This "five-factor model" shows how necessary that all these elements of the venture business interact with each other and institutional mechanisms should have been developed that allow you to do it. The state structures providing financial support and management impacts on all elements of the venture business. Business structures can finance structures that generate knowledge, educational structures and institutions of development. Development institutions, in turn, may generate knowledge of the structure of finance, education structure and business structure. All elements of the venture business must interact with each other. If it doesn't happen then the state through the managerial impact is trying to create an institutional framework for enhanced cooperation among all elements of the system.

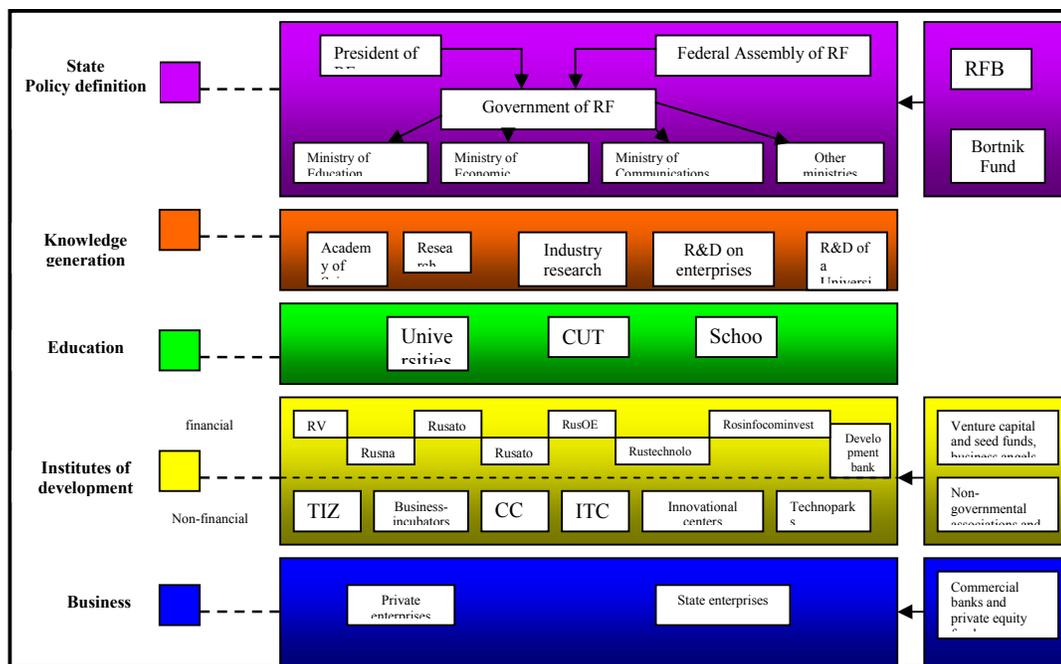


Figure 2. The institutional structure of the innovative development of Russian economy in the area of venture business

Figure 2 show that the Russian system of institutional support for the venture business has all the elements necessary for its operation. But we need to introduce new and improved old institutional arrangements to enhance the interaction of all elements of this system. A special role in this process is assigned to the state.

THE ROLE OF THE STATE IN THE INNOVATION ECONOMY

The state's role in the innovation economy grows and public policy is not just a list of priorities, but an interconnected system of strategic objectives and their feasibility. There are a number of significant environmental conditions and limitations in space, the choice of management decisions that must be taken into account in the formulation of economic policy. Innovational policy is part of the economic policy of the state, so the methodology of its formation is common.

The first in a chain of public policy component - the choice of values – it allows to continue through what is called the generator of the development goals, starting from the values , to form the objectives of management or development within this state policy. It is important to understand that only after the formation of values and goals, the problem field of management can be formulated, since it is reflexive of value choices. It is important that the objectives are complementary, or neutral at least, but not mutually exclusive.

The next step is to define the tools and / or mechanisms of state regulation, which will be used to achieve these goals. After that - the definition of the resources needed to implement the goals. In their presence, we can talk about the possibility of transition to the next step - the definition of public authority responsible for achieving this goal. A very important factor affecting the efficiency of the implementation of public policy, is the period to achieve this goal. In this case, particular importance should be given to internal

The final stage of the development of public policy - the definition of outcome indicators and performance indicators, implementation of public innovation policy. Thus, on the basis of the mechanism represented by the state innovation policy by developing a matrix of the state innovation policy conducive to

the implementation of the institutional mechanism of innovative development of Russian economy in the venture business. The table below shows one of the possible options for its use.

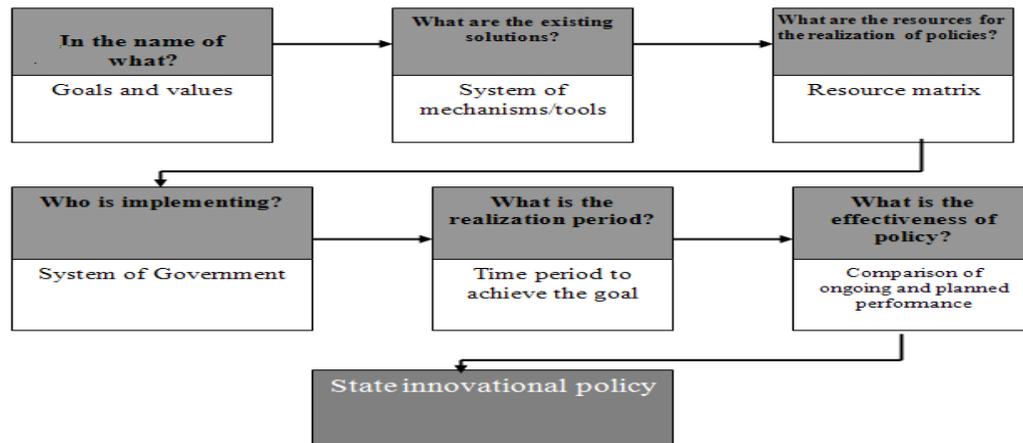


Figure 3. The scheme of formation of the state innovational policy

Goal	Instruments	Resources	The liable agency	Realization period	index
Increase in innovation activity of enterprises	Improvement the legal framework	Tax breaks for small innovative enterprises	The Russian government	2014	Shares of companies engaged in technological innovation
Russia's withdrawal to the international innovative market	Participation in international innovative conferences	Financial breakthrough for innovative technologies, oriented on the international market	Commission under the President of the Russian Federation on the modernization and technological development	2017	Russia's share in world markets high-tech products
The increase of innovational products in the global market	Improvement of customs export regulations	Reduction of export duties on hi-tech products	Federal Customs Service of Russia	2017	The share of export of Russian high-tech products in total world exports of high-tech goods
Increasing the share of GVA innovation sector in the GDP	Stimulating innovation companies by creating a favorable investment climate	Accelerated depreciation of R&D	All the organs of the NIS	2015	Share of GVA of the innovation sector in the GDP
The increase in domestic expenditure on R&D in GDP	Improving the regulatory framework to increase private investment in R&D	Special tax regime for innovational active companies	The Russian government and business sector	2015	Gross domestic expenditure on R&D in GDP
Increasing the contribution of Russian scientists in the world fundamental science	Increasing motivation of Russian scientists to develop innovative national proposals	Increasing the share of budget funding of basic science	Academy of Sciences, Academy of Medical Sciences, universities, Agricultural Sciences, Research Center, Research Center, FSPC	2016	The share of Russian researchers in world number of publications in scientific magazines
Raising the prestige of Russian universities in the world	Increased funding of scientific research-based universities and allowing researchers to participate in international researches and conferences	Raising funds from international and Russian scientific foundations by Russian institutions of higher education	The Ministry of Education and Science, Russian universities	2018	The number of universities in the international ranking of 200 universities

and external innovation policy lag.

Table 1. The matrix of the state innovation policy in the venture business

A very important factor affecting the efficiency of the implementation of public policy, is the period to achieve this goal. In this case, particular importance should be given to internal and external innovation policy lag.

The matrix (table1) shows a clear interdependence of public policy objectives, instruments of state control of resources, aimed at realizing this goal, the responsible government, implementation period and targets to be achieved at the time of implementation of this goal.

IMPLEMENTATION

Thus, the author of the article proposes to develop and implement innovative public policy in the venture business, aimed at the formation and development of innovative economy in the Russian Federation on the basis of institutional "five-factor model" of development.

REFERENCES

Chalenko V. Research and Innovation in the Organization for Economic Cooperation and Development in the post-crisis period: major trends // Economic Analysis: Theory and Practice, 2011, № 4.

Leonova T.N. Venture business in the knowledge economy: Russian experience
2010 International Conference on Management Science and Engineering, ICMSE 2010

Leonova T. Venture Enterprise in the innovation economy. Monograph. MA: Economics, 2011

Leonova T. Institutional mechanisms for the development of venture innovation. Monograph. M. Vega-Info, 2010

Leonova T. Global experience creating innovation city: stories of success and implications for Russia // Bulletin of the Institute of Economics № 3, 2011

Zinkov D. Venture financing of innovation: world experience and the realities of Russia // FiC, 2011, № 4.

<http://www.modernizations.ru/?c=entry&id=91>

<http://www.i-gorod.com/>

REGIONAL DEVELOPMENT IN THE NATIONS OF THE SOUTH: THE SUCCESSES AND FAILURES OF THE CARIBBEAN COMMUNITY AND COMMON MARKET

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ABSTRACT

The Caribbean, along with many other nations of the South, sometimes referred to as developing nations, has initiated regional integration as a method of overcoming the negative political, economic, and social effects of colonialism. From its origins in the 1960s, the effort has risen from a Free Trade Area to a Common Market to a Community. This paper examines the successes and failures, particularly from an economic vantage point, of this development effort.

BACKGROUND

As reported by this author, at times with colleagues, the concept of serious regional integration in the Caribbean dates to the period of independence. During the post-World War II period, it may well be argued that two forms of development processes evolved. The first was on a relative grand scale, virtually world-wide, so to speak, and included the programs basically of European reconstruction after the devastation of that war and in the face of the spreading Soviet threat, as it was viewed by the American government. This included the creation of the International Bank for Reconstruction and Development, and over the years, its related agencies (now the World Bank Group), the International Monetary Fund (IMF), the Marshall Plan, and other practices emerging from the Bretton Woods conference and agreement. However, a second effort emerged, one which argued that regional cooperation would also be a most successful way of economic, political, and social development, particularly for the nations of what was then called the Third and Fourth Worlds, today the nations of the South, who were emerging in relative degrees of poverty, often to a significant degree as a result of the negative effects of colonialism and, it is often stated, an attempt by major powers to maintain economic, if not direct political control, in the post-colonial period, a practice dubbed as neocolonialism.

Juan M. Fernandez, for whom I want to offer special thanks and credit, and I, previously chronicled the emergence of the concept of such integration in the Caribbean, including a paper delivered at GBATA (Le Veness and Fernandez, 2009, *passim*). The integration effort, recognized as necessary by the United Kingdom, emerged as a British proposal for unification of its former colonies under an institution to be named the Federation of the West Indies, which took shape as early as 1958. However, this proved to be a non-starter, as the newly emerging nation-states were not about to permit unification under one central authority. Trinidad and Tobago quickly withdrew, with the famous phrase coined by its Premier, Dr. Eric Williams, "4-1=0." Nevertheless, there was a considerable concern expressed concerning the viability of small nation-states, often referred to as mini-states, and their possible survival in the global economic and political society. Cooperation was, indeed, perceived as the best road for development, creating larger markets, possible free movement of labor and finances, cross-fertilization of industrial endeavors, and the like. In short, there was an effort to overcome specific vital concerns, including what the Caribbean Community Secretariat listed as: "(a) high rates of unemployment, (b) the vulnerability of the high-cost agricultural export sector; (c) near-stagnation and, indeed, slow death of Domestic Agriculture; (d) the lack of 'forward and backward linkages' in the national economy – around Minerals, Manufacturing and Tourism; (e) continuing and growing foreign ownership and control of the economies; (f) low national savings, increasing tastes for foreign goods and high consumption levels of imported goods; (g) the failure to

develop extra-regional exports of manufactures and new non-traditional agricultural exports; (h) the existing of few “linkages” between the national economies of the Region – whether measured by the proportion of intra-regional trade to total trade or by ‘linkages’ between the productive sectors of the national economies” (CRS, 1973, 10).

In 1965, in the Treaty of Dickenson Bay, a number of the new states created a free trade zone, entitled the Caribbean Trade Association, which was subsequently enlarged to include the other former British dependences, including all the smaller Leeward and Windward Islands which were formed into the Associated States, and later, after independence, the Eastern Caribbean Common Market. Benefits included: (a) to promote the expansion and diversification of trade in the area of Association; (b) to secure that trade between Member Territories takes place in conditions of fair competition; (c) to encourage the progressive development of the economies of the Area; (d) to foster the harmonious development of Caribbean trade and its liberalization by the removal of barriers to it” (CARIFTA Charter, Art. 2).

However, there were several limitations to CARIFTA. First, it only dealt with the question of internal markets and the lowering and elimination of tariffs and other artificial barriers to trade among the member nations. It did not include such vital issues as Direct Foreign Investment, have the advantage of a unified currency system, have control over tariffs and other trade barriers or agreements between member states and other nations outside of CARIFTA, and the like (see CCRS, 1971, 51; CCRS, 1972, Chaps. 3, 5, 6). As a result, and, undoubtedly viewing the success of agreements in other areas of the world, particularly the European Common Market, the islands initiated negotiations which led to the first Treaty of Chaguaramas which became effective on 01 May 1974.

The new treaty created the Caribbean Common Market and Community, and organization designed specifically to overcome the short-falls of CARIFTA by enlarging the economic control of the Heads of Government Conference, Secretariat, and other elements of the new Common Market and Community both with regard to economic affairs and with regard to political and social concerns. This included a free trade area among members, unified economic policy with regard to other global trading partners, free movement of labor and capital within the region, innumerable social services, from weather forecasting, to shipping, to continuing and higher education, and the like. Bauman (2008) noted that the main concern of CARICOM has been “to promote economic integration of member countries by means of a common market, coordination of a common external policy and functional cooperation in terms of health, education, culture, communication, and industrial relations” (p. 6).

However, the world economy has significantly changed, and particularly, has globalized. This is witnessed, for instance, by the conversion of the post-World War II General Agreements on Tariffs and Trade (GATT) with its various amending Rounds, e.g., Uruguay Round, Kennedy Round, and the like, and the creation of the World Trade Organization (WTO). All of this, not least the WTO, has its many critics, many of whom believe that this new world order, if it may be named that, and its institutions, including the WTO, sustain a world trade pattern that favors the nations of the North. In some cases, it is suggested that this may be a deliberate endeavor to limit the development of South nations, for purposes of maintaining and increasing the wealth of North nations by creating limited development in harmonization with the manufacturing and other industrial, and even agricultural, patterns of the North, and/or fearing that such development in the South might well place an unacceptable strain on the world’s resources, which those North nations are not willing to share with the South in a sufficiently acceptable manner. ““The recent globalization process poses significant challenges to small developing economies, such as those in the Caribbean which are already dealing with a number of issues in their pursuit of sustainable development” (UN/ECLAC, 2002, Chap. 11).

Whatever the case, and it is far beyond the scope of this paper to undertake a discussion of these global economic (and, therefore, political) conflicts. What needs to be stated is that by the opening years of the Twentieth Century, there was sufficient global economic change, that it was strongly believed that the original CARICOM provisions were in need up revision and updating. The original Treaty of Chaguaramas was in need of serious revision.

CARICOM FACES THE TWENTY-FIRST CENTURY

A Fernandez and I reported earlier (2009) citing Khary (2002), the Caribbean islands face the problem that “their small island states face significant hindrances to development such as modest populations, limited expanses of viable land, and insufficient capital flow.” He adds, “CARICOM’s members are not large

nation-states with significant amounts of resources at their disposal. Unlike the EU which one can argue has France and Germany as its 'economic anchors' CARICOM does not have a 'superpower' to rely on to stabilize it. Even worse, the global shift toward free trade has hit the Caribbean hard removing market protections of major industries like bananas," (p. 9).

To counter these developments, in 1992, a Caribbean Single Market Economy (CSME) was initially proposed, and in 2001 the CARICOM nations gathered and revised the Treaty of Chaguaramas, a major change in which was the incorporation of the CSME. Fernandez and I reported a number of changes which resulted from this redesigned treaty. For example, it seeks "the achievement of a greater measure of economic leverage and effectiveness of Member States in dealing with Third States, groups of states, and entities of any description" (Revised Treaty). It seeks to "stimulate and facilitate improved competitiveness in regional economies and to heighten power in the different theatres of international economic negotiations" (Girvan, 2005, 1). It is interesting to note that the revised treaty puts the members of the Caribbean Common Market into compliance with the World Trade Organization, a factor which did not have to be considered in 1974, but which could have a significant impact on their future trade relations. It might be well to recall the so-called "banana war" between St. Lucia, a CARICOM member, and the Central American nation of Honduras, a case heard before the WTO, which was lost by St. Lucia. As we had reported in the 2009 paper at GBATA, the Foreign Minister of the Bahamas, Fred Mitchell reemphasized: "This decision was taken against the background of a fast moving world economic situation, where trade liberalization is the order of the day, and where The Bahamas must position itself or get left behind in the global economic gain" (2005). Valerie Alleyne-Odle, n.d.) has noted that "[t]he CSME is aimed at integrating the economies of CARICOM into a unified market in which goods, people, services, capital and technology can move freely across borders under the same coordinated and harmonized economic policies. The enlarged economic space is intended to minimize the inherent weaknesses resulting from small size. In addition to economies of scale, there is expected to be derived significant economies of scope" (p.3). Three other identified benefits included "the free movement of factors of production would result in increased efficiency in the allocation of resources for both goods and services and create a more conducive business environment" hoping to attract more intra-regional and external investors, "the achievement of macro-economic harmonization in such areas as monetary, financial, investment, incentives and fiscal policies" assisting the business community, including labor, and, very importantly, "the greater efficiency enjoyed under the SCME for intra-regional competition will serve as a platform for more enhanced international competitiveness of the Caribbean economies" (pp. 2-3). She concludes that the CSME "may be seen as an instrument that creates the enabling environment which can deliver the desired social change and improved standard of living....stimulate endogenous growth within CARICOM economies; enhance international trade competitiveness, and the increase scale and scope of the production base for regional and extra-regional markets" (p. 13). However, she ends with a note that becomes so urgent later on, and is further discussed later in this paper, that the scheme needs "[t]he establishment and effective functioning of the attendant institutional framework" which is so vital to its success (p. 13).

Perhaps one of the most important aspects of that 2001 revised treaty was, in effect, the creation of a Caribbean Single Common Market and Economy (CSME). This has really changed the economic condition of the region. Members now are expected to harmonize to the point of virtually becoming one economy, with common policies which would enhance that reality, such as common movement of labor (so difficult in areas of relatively high unemployment and underemployment), one economic policy, such as a tariff and quota system, trade policy toward non-members as well as each other, movement of investment capital, and integration into a global economy which seeks to establish freer, and eventually, at least in theory, free trade. However, it would seem it can still be debated as to exactly how much power the CSME would offer central authorities and how much would be retained by the states, presumably to be determined in the coming years. One worrying comment was expressed by Bank of Barbados Governor Dr. Deslisle Worrel, who stated that in the CSME, "economic issues are debated from an exclusively national perspective, with little or no attention paid to the implications of developments elsewhere in the region" (2007, 82).

Specifically, the Revised Treaty seeks "the removal of all restrictions on movement of capital payments (Art. 40), "equity and portfolio investments, and payments relating to investment flows (Art. 40), and [T]he establishment of a regional stock market.....seen as an integral part of the deepening and widening of the integration process in CARICOM..... as [they] move to establish the CARICOM Single Market and Economy" (Robinson, 2006, 31). In short, the purpose of the Revised Treaty is to "achieve sustained economic development based on international competitiveness (Preamble), a significantly different goal than that set by the original Treaty of Chaguaramas in 1974.

AS TO THE FUTURE.....

Much has occurred since the Revised Treaty of Chaguaramas took effect at the start of the Twenty-First Century, and yet, much has tended to remain the same. For instance, in a study produced in 2003, it was noted that a mere 0.2% of total trade occurred between the Central American nations of the Central American Common Market (CACM) and the CARICOM nations. This study cites an earlier (1999) report which notes that “CARICOM trade with CACM” is influenced by historical factors, language differences.....and the scarcity of established linkages” (Harding and Hoffman, 18). This is an illustration of the type of seemingly almost unchangeable condition which needs to be corrected if greater Caribbean economic integration is to be achieved.

In addition, the world economy has continued to globalize, and true to the fear of many, the downs of that world globalization, such as the economic crises at the end of the first decade of this century has caused severe problems for many of the nations of the South, including the CARICOM nations. ECLA (2010) noted that “countries in the region have been hit hard by the global economic and financial crisis, in part because their economies and public finances were already fragile before entering the turmoil (p. 118). It noted that the downturn was particularly severe with regard to commodity exports, but less so with regard to services. Naturally, the tourist industry was extremely hard-hit by the world conditions. What is even more interesting, ECLA reported that even when analyzing the period 1990 to 2008, although the aggregate of goods exported had risen for the region, the actuality was that only Trinidad and Tobago had made substantial gains. The position of the remainder of the nations remained rather flat (pp. 121-22). What is perhaps another serious indicator, was that during that same period, though the service industries had made significant gains, the percentage of their participation in the total of world service exports had declined, though that is an extremely vital sector for most of the CARICOM members with the exception of Trinidad and Tobago, Suriname, and Guyana (p. 123). Even trade within the group “is a relatively small but growing share of total trade.” However, it “is skewed towards a few countries and a handful of products, as for example, Trinidad and Tobago, by far the leader in such production, relies heavily on oil and its products in sales to other member countries (p. 125).

Clearly, however, much of the downturn can be attributed to the global crises of the period. For instances, Mohammed and Anvanwu stated that “Caribbean Community (CARICOM) countries have experienced severe economic decline since 2008. While countries across the globe were impacted by the economic and financial meltdown, the intensity of its effects upon CARICOM states was so utterly devastating that by 2009 several member states had approached the International Monetary Fund (IMF) for assistance to stabilize their economies. These scholars suggested [d]eclining commodity prices, travel receipts, remittances and external demand meant that virtually every CARICOM country was negatively impacted. By 2009, the more developed countries (MDCs) of CARICOM had declined by 1.2% while overall decline in the Eastern Caribbean Currency Union (ECCU) countries was estimated at 7.3% (2011) p. 77 citing an ECLAC 2010 report).

ECLA offered the following recommendations in its report that there were a number of steps which that area needed to effect: “(i) deepening of subregional integration by taking concrete steps toward the implementation of commitments made thus far and correcting existing deficiencies and weaknesses of the ongoing Caribbean integration process; (ii) empowerment of institutional and human-resource capacities to take full advantage of the opportunities that trade agreements with developed economies offer, particularly the Economic Partnership Agreement (EPA) with the European Union; (iii) diversification of exports to promote value generation, knowledge incorporation and productivity upgrading in export-related activities, and (iv) enhancement of intra- and extra-regional cooperation efforts on “supply-side constraints” accompanied by increased financial resources (including those available from aid for trade (AfT) initiatives) to overcome such constraints in the face of increasingly difficult fiscal balances and limited financial resources in the region” (p. 117). However, it cautioned that although intra-regional trade could be considerably increased, it would probably never be a major portion of the total trade picture.

Among the positive results, in 2010 the Eastern Caribbean states, i.e., the Leeward and Windward Islands, which had established a Common Market (ECCOM) as early as 1968 within the larger CARIFTA organization. This was due to the perceived need on their part to protect goods and services from the significantly larger economies of the major economies of CARIFTA. These same nations had also moved from an Eastern Caribbean Currency Authority to an Eastern Caribbean Central Bank, as well as establishing an Eastern Caribbean economic union through its 1981 Organization of Eastern Caribbean States (1981). The purpose is, of course, is “to allow for the free circulation of goods, services, labour, capital and the

establishment of a common external tariff” (p. 128). What this has effectively created is a single banking system, securities exchange, joint diplomacy, and aviation and communications authorities. OECS Authority decisions are legally binding on all member states, a condition not part of the current CSME (129). This “indicates that the OECS governments have finally acknowledged that the status quo is not sustainable and that they must move towards greater economic and political union, if they are to break the cycle of dependency and become viable in a globalized economy.” That author, Thomas Andrew O’Keefe, President of the Mercosur Consulting Group in Washington, also concludes that “an economically and politically integrated OECS may give the participating states sufficient self-confidence in order to end their foot dragging to greater economic integration within CARICOM” (p. 21).

Returning to the consideration of CARICOM as a whole, that same 2009-2010 Report listed a significant number of reforms which were needed to improve economic conditions in the region. Some of the major reforms are (1) despite the fact that members, except The Bahamas, have officially adopted a Common External Tariff (CET) “there is a broad scope for tariff suspensions and reductions and national derogations from the common tariff,” (2) “Free-movement of goods within the single market is still being hindered by non-tariff barriers such as phytosanitary standards and technical barriers.....,” (3) there is “a need for the free movement of capital, skilled labour and managerial expertise” in the service area and in general “free movement of capital and labour,” (4) there is need of legal authority to compel compliance in these areas, (5) there is a shortage of public finance, (6) there is a need for “coordination and harmonization in fiscal policy,” (7) there is a need for implementation of proposals to assist the Eastern Caribbean states, and so forth (129-32).

Mohammed and Anyanwu (2011) add that CARICOM nations “vulnerability and susceptibility.....of their economies to external shocks in a post-crisis global trading economy” they note the need for “diversification strategies,” several of which they suggest, while cautioning that [a]t the regional level, the lack of standardization and harmonization of national standards and regulations not only presents challenges for increased intraregional trade it also prevents the pooling of regional resources towards building the capacity to meet these growing requirements in national, regional and international markets (p.78). They conclude that regional firms must be willing to diversify both with regard to products and with regard to markets. In short, so much revolves around competitiveness in this global economy (p. 88).

Last year, Landell Mills Development Consultants issued a lengthy and quite critical report concerning the future possibilities of CARICOM at the behest of the Heads of Government Conference of CARICOM through the CARICOM Secretariat. In their findings, were both lengthy and very specific. In summary they suggest that the organization has three specific problems, “frustrations with its slow progress” which have “continued to mount,” “a serious weakening in its structure and operation over a number of years;” and “continuing economic retrenchment since the 2008 financial crisis and the risk of a further downturn in 2012” (Stoneman, Pollard, Inniss, p. 7) . Their conclusion, very briefly, are that the future of CARICOM really depends upon the following: “(I) The Full and unequivocal support of Member states;” (II) Targeting the delivery of a narrow range of specific, practical and achievable benefits over a reasonably short time horizon; III. A credible reorganization and strengthening of the CARICOM construct, including the Secretariat and CARICOM institutions, focused on the management of implementation (p. 7). They suggest, that “[d]espite Member States maintaining a serious commitment to regionalism in principle, many of their decisions, practices and actions have – often inadvertently – undermined and weakened CARICOM in reality.” In addition there is a need “to settle on clear priorities as to what it can and cannot do,” and limit its priorities, as the report indicated it hoped would be the case after the Heads of Government meeting in 2011. Thirdly, those interested “need to become more realistic about the insurmountable constraints of geography, lack of size and complexity faced in developing a successful regional construct in the Caribbean” (p. 8). The report continues “whilst these constraints impose limitations on what can be done and the speed at which it can be done, the fundamental challenge is to address the plethora of weaknesses in the CARICOM construct that have prevented it making acceptable progress over many years” (p. 8). Included in the report are specific suggestions to restructure the office of the Secretary-General, to implement new and stronger management procedures and authority over member states, and the like. This at a time when finances both at CARICOM headquarters and in the member states are difficult to raise, to say nothing of increase.

Probably in expectation as to what might be expected from the report, upon taking the position of Secretary-General of CARICOM, Ambassador Irwin LaRocque (15 August 2011) noted in his acceptance speech, in what truly may be prophetic words, that “it cannot be business as usual” and that “[T]here is a general view out there that all things CARICOM, rightly or wrongly, are the purview of the CARICOM

Secretariat. That is not necessarily the case; but if it is determined that this is how it should be, then the requisite reforms must be undertaken. There cannot be responsibility without authority” (LaRocque, 2012a, p. 10). He emphasized the need for functional cooperation. The Landell Mills report, noted above, recommended an entire Change Process for the organization. In 2012, Secretary-General LaRocque implemented such a procedure and appropriate organization, and it remains to be seen what will emerge in terms of reform. He did note in 2012 “that the secretariat has already lined up the necessary resources to get it done and intends to start in earnest the change process or the transformation process” (Restructuring, 2012). This year, “his emphasis will be on leading the transformation process within the Secretariat and the Community at large” (LaRocque, 2012, p.9).

Ambassador Sir Ronald Sanders, a Visiting Fellow at the Institute of Commonwealth Studies of the University of London wrote a rather devastating piece earlier this year in which he suggested that member countries have effectively stopped cooperating with the CARICOM scheme of integration, and are at best “paying lip service to the process of economic integration. Rather, they are concentrating on their own individual national development, most of which are doing quite poorly, as is evidenced by the fact that the OECS nations along with Barbados have “dangerously high debt to GEP ratios of over 65 percent and some are well over 100 per cent. Jamaica’s economy has been in dire straits for years and there appears little hope of a dramatic improvement anytime soon. He adds that many nations have become dependent upon Venezuelan inexpensive oil (Petro Caribe), on loans from the Caribbean Development Bank, which has had several downgrades by Standard and Poor’s because of failure of states to repay, and on other international aid sources, none of which may be guaranteed over the long term. This author sees a possible demise of CARICOM in 2013 if what I might call the “race to the bottom” is not halted. He suggests that some of the more successful nations, namely, Trinidad and Tobago, Guyana, and Suriname might decide to abandon CARICOM and join with other groupings such as in Latin America. As it so correctly concludes, “It is down to leadership.” As Ambassador Dr. Clarence Henry of Antigua and Barbuda to CARICOM stated, “that regional integration requires constant tweaking” in this “evolving global multiplex of nations.” On a practical note, he urged the development of a type of Marshall Plan funded regionally and administered by the CARICOM organs” (CCS, 2013b). That would be most interesting, a type of “boot-strap” operation, but would require financial support of a nature which might not be easily acquired from intra-regional members.

Ambassador Irwin LaRocque, the CARICOM Secretary-General has noted that the IMF had predicted an economic slump in the United States and in Europe which would certainly affect the Caribbean nations, and cited an IMF Report “Caribbean Small States: Challenges of High Debt and Low Growth” [February 2013], which states that the Caribbean nations “to varying degrees and with some exceptions” are confronted with “extreme versions” of conditions common to small nations, namely, “low growth, high debt, significant vulnerabilities to natural disasters, and low resilience to shocks” (CCS, 2013a).

Again, on a positive note, the ECLA does note that the 2008 agreement known as the Economic Partnership Agreement (EPA) between the European Union members and the Caribbean members of so-called ACP (Africa, Caribbean, Pacific) group. This is designed to foster the elimination of artificial barriers, such as tariffs, to trade relations and also to serve to enhance the economic development processes of the nations involved. In short, recommendations are for increased integration, harmonization of policies, diversification of industry, and so much more, all in an effort to improve the economic base, in significant part by improving trade relations nations outside the CARICOM group.

Within the region, there have been some important initiatives, for example, the Agribusiness Development Programme as a part of the Caribbean Integration Support Programme (CISP), which, it might be noted, is funded by the European Development Fund (EDF) (CCS, 2011). There was also the institution of the Caribbean Renewable Energy Development Programme (CREDP), and in March of this year, at the 41st Special Meeting of the Council for Trade and Economic Development (COTED), a main item of the agenda was the approval of a Regional Energy Policy and Agreement by member States on Targets and Strategies for Renewable Energy (RE) and Energy Efficiency (EE) as a beginning part of the Caribbean Sustainable Energy Roadmap and Strategy (C-SERMS) (CC Energy, 2013, 1). Very important has been the creation of a Caribbean stock exchange.

It remains to be seen what lies ahead. Sadly, I must conclude that some of the optimism I engendered when I coauthored that GBATA paper on this subject with Juan M. Fernandez, has evaporated. The Caribbean nations are in a crisis. They are financially strapped and are trapped in a milieu of limited resources, high unemployment, lack of regional and extra-regional investment, deep debt, significant trade deficits, depleted tourism, and so much more. It will take massive efforts, as indicated by this paper, to correct the situation. Does the area have the ability, and if so, does it have the fortitude to undertake this

process, or will it either turn to other organizations of integration, while hoping for the best, or be condemned to a future of continuing dependency and poverty? Dr. Kenny Anthony, Prime Minister of St. Lucia recently spoke of the economy of the CARICOM nations as “caught in the most debilitating economic crisis since independence” (CCS, 2013c). He is so right!

REFERENCES

Alleyne-Odle (2007?), Valerie, “The Caribbean Community and Caribbean Common Market (CARICOM) – Institutional Challenges and Prospects: The CARICOM Single Market and Economy. Georgetown, Guyana: Caribbean Community Secretariat, Foreign and Community Relations.

Bauman, Renato, 2008. *Integration in Latin America*. Brazil: ECLAC – United Nations.

Caribbean Community Secretariat (CCS) (2011). “Promoting Agribusiness Within the CSME,” Georgetown, Guyana.

CARICOM Energy Program, “CARICOM Energy Ministerial Set for First Quarter 2013 in Trinidad and Tobago,” *C C Energy*. October-December 2012.

CCS (2013a), “Opening Remarks by Ambassador Irwin Larocque, CARICOM Secretary-General, at the Thirty-Sixth Meeting of the Council for Trade and Economic Development,” Georgetown, Guyana, 02 May.

CCS (2013b), “Essence, Spirit of CARICOM Still Relevant—Ambassador Clarence Henry.” Georgetown, Guyana.

CCS (2013c). “Big Conversation Needed on Future of Regional Economies – PM Kenny Anthony.” Georgetown, Guyana.

Caribbean Community Regional Secretariat (CCRS) (1971), *CARIFTA and the New Caribbean*. Georgetown, Guyana.

CCRS, (1972). *From CARIFTA to Caribbean Community*. Georgetown, Guyana.

Caribbean Regional Secretariat (CRS) (1973), *The Caribbean Community: A Guide*. Georgetown, Guyana.

Girvin, Norman (2005). “Whither CSME.” *Journal of Caribbean International Relations*. 1 (13-32).

Harding, Alan and Jan Hoffmann (2003), “Trade between Caribbean Community (CARICOM) and Central American Common Market (CACM) Countries: The Role to Play for Ports and Shipping Services. Santiago, Chile: United Nations Economic Commission on Latin America and the Caribbean, Natural Resources and Infrastructure Division, Transport Unit, May.

Khary, Francis, (2006). “Island Economics.” *Harvard International Review*. 28, 3 (October)

LaRocque, Irwin (2011). “I Cannot Do It Alone: The Entire Community Must Make This Journey with Me.” *CARICOM View*. December.

LaRocque, Irwin (2013). “Secretary-General Irwin LaRocque: Answering the Call.” *CARICOM View*, December, 6-9.

Le Veness, Frank Paul and Juan M. Fernandez (2009), “Chaguaramas Revisited: The Future of Economic Integration with CARICOM,” Delener, Nejdet, Leonora Fuxman, F. Victor Lu, Anna Putnova, Luis Eduardo

Rivera-Solis, eds, *Business Strategies and Technological Innovations for Sustainable Development: Creating Global Prosperity for Humanity*, Prague: Global Business and Technology Association, p. 1215-22.

Mitchell, Fred. “Caribbean Single Market and Economy.” Presentation at Chamber of Commerce, Nassau, New Providence Island, The Bahamas.

Mohammed, Debbie A. and Chukwudi David Anyanwu (2011). "Increasing the Trade Related Capacity of CARICOM Firms in a Post-Crisis Global Economy: The Role of Standards and Regulations." Institute of the Integration of Latin America and the Caribbean (IDB-INTAL), No. 33, Vol. 15, July-December, (78-91) citing United Nations Economic Commission for Latin America and the Caribbean (2010). "Economic Survey of the Caribbean 2009-2010: Fiscal Consolidation and Medium Term Growth."

O'Keefe, Thomas Andrew (2010). "The Role of the Organization of Eastern Caribbean States (OECS) Plays within the Caribbean Common Market and Community (CARICOM) and in the Caribbean's Relationship with the World Economy," Paper, Annual Conference of the International Studies Association, New Orleans, Louisiana, 19 February.

"Restructuring Caricom Secretariat High on 2013 Agenda – Larocque." *NCN News* (Georgetown, Guyana) 29 December 2012.

Robinson, Justin (2006). "Aspects of the Caribbean Single Market and Economy: How Integrated are Regional Stock Markets?" *Journal of Eastern Caribbean Studies*. 31, 4 (3-52).

Sanders, Sir Ronald (2013). "2013 – CARICOM Irrelevant or Essential?" *Caribbean-Events.com*. 08 February.

Stoneman, Richard, Duke Pollard, Hugo Inness (2012), "Turning Around CARICOM: Proposals to Restructure the Secretariat, Landell Mills: Trowbridge, England, UK, January.

UN/ECLAC (2002). "The Effects of Globalization on CARICOM Caribbean Economies." *Globalization and Development*. New York: United Nations Economic Commission for Latin America and the Caribbean.

UN/ECLA (2010). "Caribbean Trade and Integration: Trends and Future Prospects." *Latin America and the Caribbean in the World Economy 2009-2010*. New York: United Nations Economic Commission for Latin America and the Caribbean, (Chapter 4) December.

Worrell, Desisle. "What Does the New Economic Order Mean for CARICOM Central Banks?" *Journal of Eastern Caribbean Studies*. 32, 3 (70-84).

RELATIONSHIP BETWEEN ORGANIZATIONAL FACTORS AND ENTREPRENEURIAL COMPETENCIES: A STUDY OF COORDINATORS OF UNDERGRADUATE COURSES IN THE SOUTH OF BRAZIL

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ABSTRACT

This study analyzes the relationship between organizational factors and entrepreneurial competencies of coordinators of undergraduate courses in two community universities in Santa Catarina, Brazil. The organizational factors studied were: management support, freedom at work, rewards, and time available and organizational limitations. Eight entrepreneurial competencies were considered; five included in an achievement set, and three in a planning set. The method was quantitative and descriptive, adopting a structured questionnaire as the data collection tool. Factor analysis, canonical analysis, and multiple regression analysis were performed. The results revealed a positive relationship between the constructs. The most relevant competencies were organizational limitations or uncertainty about tasks, and freedom at work, which indicates the importance having clarity about rules and decisions that should exist both at the level of performance expected of the coordinator, and the freedom that they must feel in their work.

INTRODUCTION

Managers of many different organizations have realized, over time, that in order to improve organizational performance and adapt quickly to the business environment, organizational factors and entrepreneurial competencies are important institutional factors (Mello, Leão & Paiva Jr., 2006). It is also believed that companies that achieve above average results, compared to their competitors, are those that have individuals among their staff, who create and develop innovative actions (Hashimoto, 2006). These are employees who have entrepreneurial competencies and who, when they receive the appropriate support, stand apart for their achievements. These corporate entrepreneurs see the business as a place where their competencies are developed and manifested in real actions (Lenzi, 2008). They seek to perfect them, and feel personal gratification at being an integral part of the organization.

Therefore, as suggested Birley and Muzyka (2001), sharing the vision of internal processes, beliefs, values, interests, goals, and objectives of an institution with the employees, together with knowledge of external factors, offers opportunities to develop their competitive capabilities. In this context, when the employees of an organization apply the fundamentals of entrepreneurialism, it is known as intra-entrepreneurialism. Which basically is to encourage proactivity and innovation, i.e. anticipating changes in scenarios, needs, and expectations, and implementing ideas that will give the company competitive advantage.

More specifically, when it comes to Institutes of Higher Education (IHE), whose basic inputs are intelligence and knowledge, and where people are simultaneously raw material and instruments of intellectual production, organizational performance is tied to organizational factors and entrepreneurial competencies. IHEs see themselves as reflexive centers of knowledge, with highly trained professionals

whose role is to produce and socialize knowledge. These institutions are instruments of renewal and change and, historically, have contributed to advances in culture, science, technology, and social and technical innovation. They are the ideal place for discussing ideas and ideologies and, also, an intellectual space where organizational factors and entrepreneurial competencies should be the indicators for recognizing success.

According to the model of Moriano *et al.* (2009), organizational factors may be viewed as having five dimensions: management support (AD), freedom at work (LT), rewards (Rc), time available (TD), and organizational limitations or uncertainty about tasks (IT). At the same time, there are competencies associated with entrepreneurial attitudes that further understanding of the attributes that shape meaningful answers in interactions with internal and external groups. As proposed by Lenzi (2008), these are linked, among others, to eight entrepreneurial competencies: those of the achievement set, which include search for opportunities and initiatives (BOI), calculated risk-taking (CRC), demand for quality and efficiency (EQE), persistence (PER), and commitment (COM); together with those of the planning set, which include search for information (BDI), establishing goals (EDM), and systematic planning and monitoring (PMS).

The increasing competition and demanding requirements create a scenario in which organizational factors and entrepreneurial competencies can represent competitive advantages for IHEs. Bearing in mind that individual competencies allow IHE teachers to recognize and act on opportunities for innovation, assuming the inherent risks, D'Este *et al.* (2012) state that professors who integrate diverse knowledge into their work, presented from different methodological perspectives, are more likely to develop competencies and to propose innovative visions and applications. It is based on these arguments that the question that this work seeks to answer emerges:

To what extent are organizational factors significantly related to the entrepreneurial competencies of the coordinators of undergraduate courses in IHEs?

More specifically, with a focus on interest, and in order to answer this research question, the investigational hypothesis presented is that organizational factors are positively related to the entrepreneurial competencies of these coordinators.

ORGANIZATIONAL FACTORS AND ENTREPRENEURIAL COMPETENCIES

The development of intra-entrepreneurial behavior, according to Moriano *et al.* (2009), is either favored or restricted by the type of procedures defined by organizations for employees to perform their activities. Hornsby, Kuratko, and Zahra (2002) identify five organizational components that promote this behavior:

1) Management support: it is essential that management accept employees with intra-entrepreneurial behavior, as well as enabling conditions and resources for the development of innovative ideas (Stevenson & Jarillo, 1990, Kuratko *et al.*, 1993). Management, as conceived by Dornelas (2003) and Hisrich and Peters (2004), should ease the way for intra-entrepreneurs to overcome bureaucratic barriers and/or to obtain resources. According to Daft (2002), it reflects the extent to which the managerial structure itself encourages employees to believe that innovation and entrepreneurship are part of everyone's role in the organization. He also maintains that the conditions that reflect management support are: rapid adoption of employees' ideas; recognition of people who succeed in moving ideas forward; support for small, experimental projects; and allocation of capital to initiate projects.

2) Freedom at work: consists of giving autonomy to employees to make decisions, delegating authority and responsibility to them (Zahra *et al.*, 2002). For Birley and Muzyka (2001), Dornelas (2003), and Cozzi and Arruda (2004), this means the existence of values like respect and confidence in people, encouraging action, and stimulating decentralization of power. Hernandez and Caldas (2001) argue that the autonomy given to employees urges them to find the best solutions for business. Hashimoto (2006) advises that the organizational system must be sufficiently flexible to give autonomy of decision and action to the intra-entrepreneurs of its teams.

3) Rewards: encouraging employees to take on new challenges (Kuratko, Montagno & Hornsby, 1990; Birley & Muzika, 2001, Dornelas, 2003, Kuratko, Hornsby & Bishop, 2005). But to be effective, they must be based on goals, feedback, individual responsibility, and performance-related bonuses. For Marvel *et al.* (2007), besides being able to provide challenges and increase accountability, the organization may also present the ideas of its intra-entrepreneurial employees to the highest levels of the organizational hierarchy.

4) Time available: encouraging employees to think of new ideas or new products, or improve existing procedures (Covin & Slevin, 1991).

5) Organizational limitations: Moriano *et al.* (2009) redefined this as uncertainty about tasks, referring to the lack of clear rules and indecision around the level of performance expected of the employee. According to Birley and Muzika (2001), Dornelas (2003), Kuratko, Hornsby, and Bishop (2005), management processes must be open, accessible to all, and frequently reviewed, so that learning can be disseminated throughout the organization. For these authors, lack of strategic direction can inhibit actions that have real impact. According to Hashimoto (2006) within the intra-entrepreneurial organization, the most important communication is that which flows downwards, from higher management to the other departments. The chosen strategic direction, details of the mission, feedback generated from external information, and institutional changes, originating internally, should all flow from the top down.

In their study of intra-entrepreneurial behavior, Kuratko, Montagno, and Hornsby (1990) conducted an exploratory study using five different constructs: executive management support, rewards and resources available, organizational structure and limitations, propensity for risk, and availability of time. However, empirical analyses performed by the same authors reduced these factors to: management support, organizational structure, and rewards and resources available.

Kuratko and Hodgetts (1995) outline the key steps to creating a work environment that is conducive to intra-entrepreneurial employee behavior:

a) Set clear goals: these need to be mutually agreed upon by employees and managers so that the specific steps may be achieved;

b) Create a feedback system and positive reinforcement: the creator-inventors or potential intra-entrepreneurs must be aware that acceptance and rewards exist;

c) Emphasize individual accountability: confidence and responsibility are key success factors in any innovation program;

d) Provide rewards (or awards) based on results: the rewards system should praise and encourage people to take risks.

Zahra and Garvis (2000) created the ICE (international corporate entrepreneurship) scale in order to identify the presence of corporate entrepreneurship in subsidiaries of American multinationals. In their study, they found that the companies surveyed had tolerance for high-risk projects; actively sought out challenges instead of merely responding to the competition; emphasized long-range strategic actions instead of small tactical changes; and rewarded calculated risk-taking.

Now, within the scope of this paper, entrepreneurial competencies must be addressed. Some authors have sought, within the theme of entrepreneurial competencies, to create typologies that enable researchers to identify the skills needed to perform their jobs. Among them is the work of Lenzi (2008), which addresses the work developed by Cooley (1990, 1991). Lenzi (2008) proposes ten characteristics of entrepreneurial behavior, also called entrepreneurial competencies, grouped into three sets, as follows:

1) Achievement Set: composed of Search for Opportunities and Initiatives (BOI); Calculated Risk-taking (CRC); Demand for Quality and Efficiency (EQE); Persistence (PER); Commitment (COM).

2) Planning Set: includes Search for Information (BDI); Establishing Goals (EDM); Systematic Planning and Monitoring (PMS).

3) Power Set: comprised of Persuasion and Networking (PRC); Independence and Self-confidence (IAC).

This model is currently used by the United Nations Development Program (UNDP), and by the Serviço de Apoio a Pequena Empresa [Support Service for Small Businesses] (SEBRAE) in Brazil, for entrepreneurial training programs like the Programa para Empresários e Futuros Empreendedores [Program for Entrepreneurs and Future Entrepreneurs] (EMPRETEC).

It should be noted that Lenzi (2008) developed his thesis with emphasis on the identification of an association between the Jungian psychological types and the entrepreneurial competencies recognized in individuals considered to be entrepreneurs. The sample consisted of a hundred and twenty-six subjects, in eleven large companies located in the state of Santa Catarina, Brazil. In this study, the entrepreneurial competencies that stood out were: calculated risk-taking, persistence, commitment, search for information and persuasion and networking. It was also found that there was a high degree of significance in the association of predominant psychological types with the entrepreneurial competencies identified by coworkers.

Before the study of Lenzi (2008), which served as a reference for this role, Morales (2004) also used the work of Cooley (1990, 1991), seeking to measure the relationship between Jungian psychological types and entrepreneurial skills. The research was conducted with eighty-two entrepreneurs in the state of Santa Catarina, Brazil. In this sample, the two dominant entrepreneurial competencies were search for information and persuasion and networking. There was low correlation between psychological types and the entrepreneurial competencies studied in the group researched.

Rosa and Lapoli (2010, p. 24), studying entrepreneurial talents in the state of Santa Catarina, state that in certain contexts, some competencies are more meaningful for individual actions than others. They argue that "[...] to achieve high performance in a particular market, some competencies may be more important, but in general they must all be present if an entrepreneurial action is to generate the desired results [...]"

Schmitz (2012) sought to identify the entrepreneurial competencies required by the management of Institutes of Higher Education. The research was conducted in three universities in Brazil and one in Portugal. The sample consisted of one hundred and thirty-four interviewees. The research results identified independence and self-confidence and the most significant entrepreneurial competencies. A summary of the cited studies is presented in Table 1.

Table 1 - Studies on entrepreneurial competencies.

Author	Topic / Research	Results
Morales (2004)	Relation between Jung's psychological types and entrepreneurial competencies	In their study found that competencies were dominant individual entrepreneurs
Lenzi (2008)	Identification and association of Jungian psychological types and entrepreneurial competencies	In their study found that competencies were most prominent in large size companies
Rosa e Lapoli (2010)	Talents entrepreneurs	In their study describing the relationship between the competencies and contexts of achievement for individual entrepreneurs
Schmitz (2012)	Identify the entrepreneurial competencies of university administrators	In their study found that competencies were more significant for university administrators

Source: Adapted from the original articles

MATERIAL AND METHODS

The data for this study were obtained from professors, coordinators of undergraduate courses, at two private, community universities in the state of Santa Catarina, Brazil, via a survey, collecting data through a questionnaire. The first block of the questionnaire related to organizational factors, in accordance with the model of Moriano *et al.* (2009), and included five dimensions (AD, LT, Rc, TD and IT). The second block included, in accordance with the proposal of Lenzi (2008), eight entrepreneurial competencies, those of the achievement set (BOI, CRC, EQE, PER and COM) and those of the planning set (BDI, EDM and PMS). The third block focused on descriptive data of the respondents that were not used in this work.

The data collection tool was designed to evaluate the respondents' perceptions using a five-point Likert scale. For the organizational factors, thirty-five statements were developed; eight each for AD and LT, six each for RC and TD, and seven for IT. For each entrepreneurial competency, three statements were considered and their responses totaled.

The one hundred and twelve completed questionnaires were filled out by the coordinators, as the social subjects of the research. There were no missing data for the entrepreneurial competencies, and only seven among the organizational factors, which were filled out using the median of the other responses to fill out the missing response.

Multivariate methods were used to analyze the data – factor analysis, canonical analysis, and multiple regressions - using the SPSS and STATISTICA software programs. Factor analysis is a multivariate technique that was used in exploratory mode for the two blocks of the questionnaire, seeking to verify whether the data collected showed significant correlations between the indicators (answers) and the construct being measured (dimension of organizational factors). The premises for using it were previously verified in the Kaiser, Meyer, and Olkin (KMO) test to measure the overall adequacy of the sample and the Bartlett sphericity test. The minimum accepted commonality was 0.5 and the unidimensionality, according to the Kaiser criterion for factor retention, had to express an extracted variance greater than 50%.

After confirming unidimensionality for each organizational factor individually, a factor analysis was developed with all the indicators that had been retained in the earlier analyses. The premises were also verified, in this case, by the Bartlett and KMO tests. A restriction was set that the indicators must have a minimum correlation with the factor that expresses it, or a factorial load equal to or higher than an absolute value of 0.55, and that normalized varimax rotation would be applied to the solution obtained to distribute the variance between the extracted factors more evenly.

With the variables referenced to the entrepreneurial competencies, the procedure entailed summing the scores of the three indicators of each one of them so as to create a database for processing by factor analysis. Verified the feasibility of their execution set the same minimum value for the factor loadings of 0.55 in absolute value. Normalized varimax rotation was also applied to the solution obtained.

Considering the interest in correlating the importance of the organizational factors with the entrepreneurial competencies, canonical analysis was used. The objective of this multivariate technique is to measure the linear relationship that may exist between two sets of variables quantified in the same observation units or individuals. As such, the coefficient of correlation between the linear combinations (canonical variables) that are generated for each set is calculated. Canonical variables are extracted seeking to maximize the correlation between the sets (Mingoti, 2005). As Hair *et al.* (2005) pointed out, the restrictions for performing a canonical analysis are less rigid than for other multivariate techniques, since the aim is to measure the association between the linear combinations of the two sets by the coefficient of correlation, without the assumptions that must be met by the variables in other analyses, such as those of multinormality and homoscedasticity.

In summary, the analysis involves finding the linear combinations of each set of variables, the canonical statistical functions, so that their correlation is a maximum. The number of canonical variables that can be generated is equal to the lowest number of variables in one of the groups, and each time a new pair is generated it is, by the restrictions imposed, orthogonal or independent from those already created. These linear combinations are also called canonical factors, and they express a part of the variability that exists in the other set, which is known as redundancy. Thus, in this research, redundancy of the competencies represents the amount of variance in these variables explained by the canonical function of the organizational factors.

In this study, canonical analysis was performed in five ways: 1) based on the factorial scores generated by the respondents from the factor analysis of the organizational factors with the factorial scores of the competencies; 2) based on the factorial scores of the organizational factors with the variables of the achievement set of competencies (BOI, CRC, EQE, PER, and COM); 3) based on the factorial scores of the organizational factors with the variables of the planning set (BDI, EDM and PMS); 4) with the factorial scores of the organizational factors and the variables retained by factor 1 of the competencies (CRC, PER, BDI, and PMS); and 5) with the factorial scores of the organizational factors and the variables retained by factor 2 (BOI, EQE, COM, and EDM). Finally, multiple regressions were performed for each one of the eight competencies as dependent variables, and for the factorial scores of the five organizational factors as predictive variables.

RESULTS

Initially, an individual evaluation of the unidimensionality of the data obtained to measure the organizational factors was made through exploratory factor analysis, with the limitations detailed in the methodological procedures. Having verified this condition, a joint factor analysis of all dimensions was performed. Both the KMO test (0.728) and the Bartlett test ($p = 0.000$) show that the data are appropriate for the use of this analytical technique. The Kaiser criterion for correlation matrices, which only considers auto values higher than 1, was used for the extraction of significant factors. The results, following normalized varimax rotation, are shown in Table 2, which displays correlations higher than 0.55 between items and factors. The total variance extracted was 66.75%.

Table 2 – Factorial loads in the factor analysis of organizational factors. Principle component extraction and normalized varimax rotation. AD: management support; LT: freedom at work; Rc: rewards; TD: time available; IT: uncertainty about tasks.

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
AD1	0.8125	*	*	*	*
AD2	0.7861	*	*	*	*
AD3	0.7397	*	*	*	*
AD4	0.6652	*	*	*	*
LT4	*	0.7109	*	*	*
LT6	*	0.6759	*	*	*
LT7	*	0.7445	*	*	*
LT8	*	0.8509	*	*	0.0789
Rc2	*	*	*	*	0.6934
Rc3	*	*	*	*	0.8599
Rc4	*	*	*	*	0.7649
Rc5	*	*	*	*	0.5738
TD1	*	*	*	-0.6507	*
TD3	*	*	*	0.7271	*
TD6	*	*	*	0.7251	*
IT3	*	*	0.6769	*	*
IT4	*	*	0.7831	*	*
IT5	*	*	0.7045	*	*
IT6	*	*	0.6019	*	*
Expl.Var	2.9296	2.5935	2.3052	2.3129	2.5417
Prp.Totl	0.1542	0.1365	0.1213	0.1217	0.1338

Source: Research data.

It can be seen that each latent variable expresses a dimension of the organizational factors considered in the study, and that the factorial scores generated represent the predominant linear combination of that factor. Therefore, it was possible to consider the factorial scores derived from each factor as representative of the dimension that is correlated with it. For example, the scores of the first factor represent the effect of management support (AD), and the same may be said of the others. Based on this reasoning, the factorial scores of the five extracted factors were generated and added to the database for subsequent use during the study.

Because the data collected to measure the entrepreneurial competencies of the undergraduate course coordinators included three answers for each one, a summative scale by competency was developed as proposed by Lenzi (2008). Thus, the database to be processed consisted of eight columns, the first five relating to the achievement set competencies, BOI, CRC, EQE, PER, and COM, and the other three to the planning set competencies, BDI, EDM, and PMS. The results of the KMO test (0.743) and the Bartlett test of sphericity ($p = 0.000$) confirmed that it was possible to perform factor analysis.

The results obtained using the Kaiser criterion to determine the number of factors that have significance showed two auto values higher than 1, accounting for 62.98% of the variance in the data. The matrix of factorial loads generated by varimax rotation is displayed in Table 3. From its analysis, it follows that the sets of entrepreneurial competencies are not represented by factors independent of each other, but rather, competencies from both sets are shared in both factors. Two competencies from each set are seen in factor 1: calculated risk-taking (CRC) and persistence (PER) from the achievement set, and search for information (BDI) and systematic planning and monitoring (PMS) from the planning set. Factor 2 has three

competencies from the achievement set and one from planning: search for opportunities and initiatives (BOI), demanding quality and efficiency (EQE), and commitment (COM) are grouped together with establishing goals (EDM). The factorial scores for all of the undergraduate coordinators participating in the study were obtained and saved in the database for use in subsequent analyses.

Table 3 – Factorial loads in the factor analysis of organizational factors. Principle component extraction and normalized varimax rotation. BOI: search for opportunism and initiatives; CRC: calculated risk-taking; EQE: demanding quality and efficiency; PER: persistence; COM: commitment; BDI: search for information; EDM: establishing goals; PMS: systematic planning and monitoring.

	Factor 1	Factor 2
BOI	*	0.8016
CRC	0.8173	*
EQE	*	0.8332
PER	0.8803	*
COM	*	0.7663
BDI	0.8667	*
EDM	*	0.5931
PMS	0.6823	*
Expl.Var	2.6798	2.3580
Prp.Totl	0.3350	0.2948

Source: Research data.

With the database of factorial scores created, a canonical analysis was performed in order to evaluate the relationship that one would expect to find between the organizational factors and the competencies. The maximum number of canonical functions in this case can only be two, as it is equal to the lowest number of variables in any of the groups. The variables used in the analysis, that is, the factorial scores, having been derived from different factors, are consequently independent of each other. This condition is important in the evaluation of statistic canonical variables; the results are shown in Table 4.

Table 4 – Results of canonical analysis between organizational factors and entrepreneurial competencies expressed by the factorial scores derived from the factor analyses performed.

Canonical Function	Canonical Correlation	Canonical R ²	χ^2	p-value
1	0.479596	0.230013	33.78979	0.000202
2	0.230125	0.052958	5.82202	0.212868

Source: Research data.

Only the first function is expressive, as shown by the significances of the results by probability or p-value. In addition, the multivariate tests were significant, as shown in Table 5.

Table 5 – Multivariate tests of the significance of canonical analysis. For the Wilks' λ the F value is exact.

Test Name	Value	Approx. F	p-value
Pillai	0.283	3.494	0.000
Hotelling	0.3546	3.688	0.000
Wilks	0.7292	3.592	0.000

Source: Research data

When performing the analysis, it is important to take into account the canonical correlation as well as the redundancy index, since this is equivalent to the coefficient of determination in a multiple regression. Table 4 shows the canonical correlations for the two functions and Table 6 displays the redundancy index for the first function, which is equal to the product of the average canonical load multiplied by the canonical correlation of the function squared.

Table 6 – Value of the redundancy index for the first canonical statistical variable. The variables are the competency scores retained for each factor, in accordance with Table 3.

Variable	Canonical Loading	Canonical Loading-sqr	Average canonical load	Canonical R ²	Redundancy
sCF1	-0.42774	0.18297			
sCF2	-0.9039	0.81703			
		1	0.5	0.230013	0.1150036

Source: Research data.

The redundancy index for the second function is 0.02648, which implies global redundancy, expressed as a percentage, of 14.1485%. This shows that the organizational factors have a positive association and significant association (Table 4) with the competencies, but expressed at a low percentage.

Given these results, the study carried out a canonical analysis between the scores of the organizational factors and the entrepreneurial competencies, calculated by their summative value. The first processing was to perform an analysis between the factorial scores of the organizational factors and the competencies of the achievement set. The results obtained indicate that only the first two canonical functions have statistical significance, with canonical correlations of 0.5084 ($p = 0.000$) and 0.3982 ($p = 0.028$), respectively. Redundancy however remains low, reaching 13.14% for the five functions.

In the second processing a canonical analysis of the factorial scores of the organizational factors with the competencies of the planning set was done. In this circumstance, only the first canonical function has significance ($p = 0.000$), with a canonical correlation value of 0.4762. The percentage of total redundancy only reaches 11.75%.

Taking into account that the factors extracted in the factor analysis had competencies with high loads in both the sets (see Table 3), two more canonical analyses were performed in which the factorial scores of the organizational factors were crossed with the competencies that had been correlated with factor 1 (CRC, PER, BDI, and PMS) and with factor 2 (BOI, EQE, COM, and EDM). In the first analysis of the first two canonical functions there are correlations significant to 5%, with values of 0.4310 and 0.3886, but the total redundancy was the lowest of all, reaching only 9.17%. In the second analysis, the first two canonical functions also had significant correlations, with values of 0.4829 and 0.3971. It is in this analysis that the highest total redundancy was obtained, reaching 16.07%.

The results obtained have shown that there is a relationship between the organizational factors of higher learning institutions, and the entrepreneurial competencies of the coordinators of undergraduate courses. However, from the analyses performed, it is not possible to clearly determine which competencies are the most important to promote, or which organizational factors are the most suitable for this purpose. Seeking to respond to this question, and have a more effective approach for decision-making, a multiple regression analysis was performed in which the predictors were the organizational factor scores, which are standardized by construction and independent from each other, and each dependent variable was one of the competencies. The results are shown in Table 7, where p-values less than 0.05 and the adjusted coefficients of determination are shown.

Because the predictors are independent of each other, the lack of significance cannot be attributed to multicollinearity, but rather to the fact that a specific organizational factor does not influence the manifestation of the competency that is being considered in the regression. Taking this into account, the first thing to highlight is that rewards (Rc) does not show significance for any of the competencies considered. This may be a consequence of the respondents being coordinators of undergraduate courses, for whom there are no monetary rewards equivalent to those received by the coordinators of graduate courses *lato sensu* when they form a class. On the other hand, the entrepreneurial competency, search for information (BDI), has no organizational factor at the 5% significance level to promote it.

Of all the organizational factors, the most recurrent are freedom at work (LT) and uncertainty about tasks (IT), also called organizational limitations. They influence four of the entrepreneurial competencies

considered and, together, influence BOI, search for opportunities and initiatives, which is also related to management support (AD) and time available (TD).

Table 7 – Multiple regressions for competencies predicted by factorial scores of the organizational factors. P values smaller than the significance level.

	AD	LT	IT	TD	Rc	Ajusted R ²
BOI	0.0399	0.0135	0.0338	0.0149	*	0.1289
CRC	*	0.0072	*	*	*	0.0801
EQE	0.0164	0.0005	*	*	*	0.1390
PER	*	*	0.0153	*	*	0.0301
COM	0.0312	*	*	0.0134	*	0.074
BDI	*	*	*	*	*	*
EDM	*	0.0023	0.0026	*	*	0.1426
PMS	*	*	0.0297	*	*	0.0684

Source: Research data.

FINAL CONSIDERATIONS

The analysis of the data obtained from the coordinators of undergraduate courses of two private community universities confirms the research hypothesis, showing that the organizational factors are positively related to the entrepreneurial achievement and planning competencies studied here. However, a more detailed analysis shows that they do not all have the same impact. The greatest recurrence in the regression analyses occurred with organizational limitations, or uncertainty about tasks, and freedom at work, which is a sign of the importance of clarity of rules and decisions, which should be articulated at the level of performance expected of the coordinators, and the freedom that they must feel at work. At the other end of the spectrum, a factor with no influence over any of the competencies at the level of significance adopted (5%) was the use of rewards, in contrast to when the interviewees were coordinators of graduate courses *lato sensu* (Lizote & Verdinelli, wp). Search for opportunities and initiatives are the entrepreneurial competency for which the undergraduate coordinators must feel maximum support from the upper management of the organization. Except for rewards, which have no influence, the four factors considered are shown to be significant. Demand for quality and efficiency implies that coordinators require the dedication of the professors as much as of the students. Since some actions sometimes cause reactions, the relationship between this competency and management support is understandable: the coordinator must feel the backing of his/her superiors. The two competencies of the planning set that relate to organizational factors, establishing goals and systematic planning and monitoring, are influenced by tasks. This means that for coordinators to develop or display these competencies, the extent of the organizational limitations, which Moriano *et al.* (2009) call uncertainty in tasks, must be clear. As this is an initial study, part of a broader study in development, new approaches may offer new insights on the question by considering aspects that were not addressed in the study, such as: segregation by knowledge area, public versus private systems of higher learning, the employability index of the graduates, the reputation in the job market of the institution being analyzed, among others.

REFERENCES

- Birley, S.; Muzyka, D. F. (2001). *Dominando os desafios do empreendedor*. São Paulo: Makron Books.
- Cooley, L. (1990). *Entrepreneurship Training and the Strengthening of Entrepreneurial Performance*. Final Report. Contract. Washington: USAID.
- Cooley, L. (1991). *Seminário para Fundadores de Empresa. Manual del Capacitador*. Washington: MSI.
- Covin, J.; Slevin, D. (1991). A conceptual model of entrepreneurship as firm behavior. *Entrepreneurship theory and practice*, v. 16, n. 1, p. 7-25.
- Cozzi, A. O.; Arruda, C. (2004). *Desenvolvendo a capacidade empreendedora de uma organização*. Anais... EnEO, Encontro de Estudos Organizacionais.

D'Este, P., Mahdi, S.; Neely, A.; Rentocchini, F. (2012). Inventors and entrepreneurs in academia: what types of skills and experience matter? *Technovation*, v. 32, p. 293–303.

Daft, R. L. (2002). *Organizações: teoria e projetos*. São Paulo: Pioneira.

Dornelas, J. C. A. (2003). *Empreendedorismo corporativo: como ser empreendedor, inovar e se diferenciar em organizações estabelecidas*. Rio de Janeiro: Elsevier.

Hair Jr., J. F.; Anderson, R. E.; Tatham, R. L.; Black, W. C. (2005). *Análise multivariada de dados*. Porto Alegre: Bookman.

Hashimoto, M. (2006). *Espírito empreendedor nas organizações: aumentando a competitividade através do intra-empendedorismo*. São Paulo: Saraiva.

Hernández, J. M. da C.; Caldas, P M. (2001). Resistência à mudança: uma revisão crítica. *RAE – Revista de Administração de Empresas*, São Paulo, v. 41, n. 2, p. 31 – 45.

Hisrich, R. D.; PETERS, M. P. (2004). *Empreendedorismo*. Porto Alegre: Bookman,

Hornsby, J. S.; Kuratko, D. F.; Zahra, S. A. (2002). Middle manager's perception of the internal environment for corporate entrepreneurship: assessing a measurement scale. *Journal of Business Venturing*, v. 17, n. 1, p. 253-273.

Kuratko, D. F.; Hodgetts, R. M. (1995). *Entrepreneurship: a contemporary approach*. 3. ed, Fort Worth: Dryden Press.

Kuratko, D. F.; Hornsby, J. B.; Bishop, J. W. (2005). Managers' corporate entrepreneurial actions and job satisfaction. *International and Entrepreneurship Journal* 1, p. 275-291,

Kuratko, D. F.; Hornsby, J. S.; Naffziger, D. W.; Montagno, R. V. (1993). Implement entrepreneurial thinking in established organizations. *SAM Advanced Management Journal*, v. 58, n. 1, p. 28-39.

Kuratko, D. F.; Montagno, R. V.; Hornsby, J. S. (1990). Developing an intrapreneurial assessment instrument for effective corporate entrepreneurial environment. *Strategic Management Journal*, Chichester, v. 11, p. 49-58.

Lenzi, F. C. (2008). *Os empreendedores corporativos nas empresas de grande porte: um estudo da associação entre tipos psicológicos e competências empreendedoras*. Tese (Doutorado em Administração) – Faculdade de Economia, Administração e Contabilidade da Universidade de São Paulo FEA/USP.

Lizote, S. A.; Verdinelli, M. A. *Relações entre fatores organizacionais e competências empreendedoras. Um estudo com coordenadores de cursos de pós-graduação. (Working Paper)*.

Marvel, M. R.; Griffin, A.; Hebda, J.; Vojak, B. (2007). Examining the Technical Corporate Entrepreneurs' Motivation: Voices from the Field. *Entrepreneurship Theory and practice*, v. 31, n. 5, p. 753-768.

Mello, S. C. B. de; Leão, A. L. M. de S.; Paiva Jr., F. G. de. *Competências Empreendedoras de Dirigentes de Empresas Brasileiras de Médio e Grande Porte que Atuam em Serviços da Nova Economia*. *RAC*, v. 10, n. 4, p. 47-69, 2006.

Mingoti, S. A. (2005). *Análise de dados através de métodos de estatística multivariada: uma abordagem aplicada*. Belo Horizonte: Editora UFMG.

Morales, S. A. (2004). *Relação entre competências e tipos psicológicos junguianos nos empreendedores*. Tese (Doutorado em Engenharia de Produção) – Centro Tecnológico, Universidade Federal de Santa Catarina, Florianópolis.

Moriano, J. A.; Topa, G.; Valeor, E.; Lévy, J. P. (2009). Identificación organizacional y conducta “intraempreendedora”. *Anales de Psicología, Murcia (Espanha)*, v. 25, n. 2, p. 277-287.

Rosa, S. B.; Lapolli, E. M. (2010). Santa Catarina: um estado que é uma vitrine de talentos. *In*: Lapolli, E. M.; Franzani, A. M. B.; Souza, V. A. B. (Orgs). *Vitrine de talentos: notáveis empreendedores em Santa Catarina*. Florianópolis: Pandion.

Schmitz, A. L. F. (2012). *Competências empreendedoras: os desafios dos gestores de instituições de ensino superior como agentes de mudanças*. Tese (Doutorado em Engenharia e Gestão do Conhecimento) – Centro Tecnológico, Universidade Federal de Santa Catarina, Florianópolis.

Stevenson, H. H.; Jarillo, J. C. (1990). Paradigman of entrepreneurship: entrepreneurial management. *Strategic Management Journal*, v. 11 (Special Issue), p. 17-27.

Zahra, S. A.; Garvis, D. M. (2000). International Corporate Entrepreneurship and firm performance: The moderating effect of international environmental hostility. *Journal of Business Venturing*, n 15, p. 469–492.

Zahra, S. A.; Neubaum, D. O.; El-Hagrassey, G. M. (2002). Competitive Analysis and New Venture Performance: Understanding the Impact of Strategic Uncertainty and Venture Origin. *Entrepreneurship Theory Practice*, v. 27, n. 1, p. 1-28.

ETHICS IN HOSPITALITY RESEARCH: ALIGNING ECONOMIC AND SOCIAL PERFORMANCE

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ABSTRACT

This research explores the contributions that an analytical mindset grounded in ethics can bring to scholarship in hospitality. Ten principles defined by Byron (2006) provide a useful framework for further conceptual development and empirical testing of the role of ethics in the mutual realization of economic and social performance within the foodservice industry. An examination of the studies reported in one recent issue of a hospitality journal reveals gaps in the consideration of integrity, veracity, human dignity, participation, social responsibility and subsidiarity that, if appropriately addressed, could enhance performance both economically and socially.

INTRODUCTION

Bologna is good; it is sausage, of course.
They make it of dog and they make it of horse.

The above couplet comes down to us from Lee Caldwell (1965), an American band director in the 1950s and '60s. The eminent musician, who passed away in 1966, could not have foreseen that decades later the discovery of horse DNA in processed-meat products would capture the attention and elicit the anger of consumers across a continent.

A drive to reduce costs presumably played at least a partial role in the decision-making of the perpetrator of the horse-meat scandal. That motivation is a constant reality in the hospitality industry. Operating with high costs, low margins and often unpredictable and sometimes fickle consumer loyalties, restaurateurs and hoteliers are understandably keenly focused on the economics of survival and success. It is hardly surprising, then, that scholarship in hospitality bears the imprint of the same focus.

Attention to ethical concerns has grown in both scholarship and practice related to multiple sectors of the global economy in recent years. While ethical and social consciousness is motivating the discovery efforts of a growing number of scholars in hospitality as well as in other disciplines, studies addressing whether and how such a focus might enhance, rather than detract from, the unrelenting quest for economic viability and profitability remain sparse.

The intent of this research is to explore the contributions that an analytical mindset grounded in ethics can bring, not in contravention but in support of sound financial models, to scholarship in hospitality management. Following an overview of prior scholarship, we will examine one potentially relevant ethical framework. Finally, the usefulness of that framework in contributing mutually to economic and social performance in the food-service industry will be analyzed in the context of the findings and conclusions presented by the published authors in a recent issue of a hospitality journal.

HOSPITALITY ETHICS

Multiple scholars have spoken to the issue of ethics in the hospitality industry. A sampling of those contributions provides a sense of recent work in this domain that has guided and establishes a context for our efforts.

It was nearly two decades ago that Tracey and Hinkin (1994) warned that the “classical management style” in hospitality, in which centralized decision making left “little room for individual freedom, creativity and innovation” would cease to be effective as opportunities for “turning things around” through cost-cutting dwindled (pp. 18-19). The answer, they argued, lay in “transformational leadership” focused on such priorities as displaying conviction in and behaving in ways consistent with defined beliefs and values, going beyond self-interest for the good of the group, considering decisions’ moral and ethical consequences, and treating employees as individuals and listening to their concerns.

Upchurch (1998) identified an array of areas in which managers in the hospitality industry confront ethical issues, including guest or customer rights, sexual harassment, vendor and community relations, employee empowerment, yield management, and the balance of organizational and personal values. Observing that the bed-and-breakfast proprietors in their sample relied primarily on egoism (“maximizing self interest”) to resolve ethical conflicts, he called for a “structured approach to ethical awareness training.” Stevens and Brownwell (2000) recommended, after examining how employees in the industry acquire ethics-related information, that organizations establish clear ethical guidelines, provide training relative to those standards, reinforce them through coaching, and model desired behaviors. Later, comparing the ethical viewpoints of hospitality students and human-resource directors in the industry, Stevens (2001) found that the professionals gave lower ethicality scores to an array of ethically dubious scenarios than did the students. She concluded that “experience and heightened sensitivity to possible litigious situations may have played a role in perceptual differences” (p. 233).

Jones, Comfort and Hillier (2006) went in search of socially responsible practices among the United Kingdom’s ten leading pub operators. What they found were varying degrees of activity surrounding such priorities as promoting responsible drinking, providing no-smoking facilities, accommodating customers with disabilities, ensuring responsible purchasing, communicating effectively with employees and treating them fairly, fostering sound environmental practices, supporting local causes and contributing to charities. Their overall conclusion, however, was that “there is little explicit evidence that pub operators are fully integrating CSR into their businesses” or that they were systematically seeking “to measure, monitor, benchmark or compare their CSR performance over time or within their sector of the economy” (p. 339).

ETHICAL FRAMEWORK

While ethical philosophies, theories and models abound, the framework selected for this examination is that developed by the renowned Jesuit ethicist William Byron (2006). He identified and defined ten “old ethical principles” that he claims “meet the challenges of our new corporate culture” (pp. 5-7):

- Integrity: “wholeness, solidity of character, honesty, trustworthiness, and responsibility”
- Veracity: “telling the truth in all circumstances; it also includes accountability and transparency”
- Fairness: “justice, treating equals equally, giving to everyone his or her due”
- Human Dignity: “respectful recognition of another’s value simply for being human”
- Participation: “right not to be ignored on the job or shut out from decision making with the organization”
- Commitment: “a committed person can be counted on for dependability, reliability, fidelity, loyalty”
- Social Responsibility: “obligation to look to the interests of the broader community and to treat the community as a stakeholder in what the corporation or organization does”
- Common Good: “aligns one’s personal interests with the community’s well being”
- Subsidiarity: “delegation and decentralization, keeping decision making close to the ground.... no decision should be taken at a higher level that can be made as effectively and efficiently at a lower level in the organization”
- Love: “an internalized conviction, that prompts a willingness to sacrifice one’s time, convenience, and a share of one’s ideas and materials goods for the good of others.”

ALIGNING ECONOMIC & SOCIAL PERFORMANCE

To examine the extent to which the consideration of ethics might inform current hospitality research to enhance both its economic and social impact, the findings and conclusions drawn from the six articles published in the October-December 2012 issue of the *Journal of Foodservice Business Research* are examined in light of the above principles.

After learning through survey data that “customer satisfaction increases as customer’s expected wait time decreases” (p. 325), Iqbal, Whitman and Malzahn (2012) conducted breakeven analysis to examine the economic feasibility of adding an additional server. Their results led them to conclude that “as the cost of adding a new server increase[s], more customers should be attracted to achieve breakeven in two or five years,” with breakeven achieved earlier “as the purchase per customer increases” (p. 327). They argue further that “[t]his research is equally valid for other restaurants where customer wait time is high” (p. 328). An unstated assumption in this form of modeling is that customer wait time is the sole mediator of the impact of the size of the serving staff on customer patronage and order size. There is no denying that excessive wait times can spell trouble, especially for the quick-service segment which was the focus of this study. But is it the only, or even the most important, determinant of customer satisfaction and behavior?

What this overlooks is the reality that restaurant dining is a social phenomenon. Byron (2006, p. 124) wrote that “[c]ommitments are the cement of social relationships.” A plausible hypothesis is that the frequency with which customers choose to patronize a dining establishment, their willingness to endure modest inconveniences such as travel and wait times, and the liberality of their spending once seated is a function of their satisfaction with the relationships they have established with the restaurant staff. One might also posit that the extent to which servers exhibit the personal and professional traits that facilitate and maintain such relationships with customers is a function of the satisfaction they feel in their working conditions. While most value the effect of continuous serving with respect to tipping (except in the quick-service sector), the added stress and fatigue that come with significant understaffing may inhibit the very traits that cement customer loyalty. As Byron (2006, p. 125) suggests, when management commitment to satisfactory working conditions is lacking, “there will be a morale problem on the production side, and it is virtually certain that product and service quality will also diminish,” which in turn will be associated with “customer discontent leading to negative economic consequences.” Thus research that models customer patronage and satisfaction as a function of the restaurateur’s commitment to the satisfaction and well-being of both servers and customers, as well as wait time, may help inform and motivate restaurant staffing strategy that is both economically and socially optimal.

The work of Lee, Kim and Kim (2012) provides a glimpse at the contributions that can be made to ethical and profitable restaurant-industry practice. Applying justice theory (which views responsible employee behavior as stemming from “fairness/justice judgments” in the employer-employee relationships – p. 336) and accountability theory (which treats employee behavior as an outcome of “accountability toward the leader” – p. 337), they proposed and obtained support for an array of hypotheses about the ability of ethically based management approaches to induce desired behaviors. They concluded that managers should not only “focus on treating employees fairly” but also “be flexible enough to initiate ‘identity improvement’ chances to employees although it seems ‘unfair’ to the leader.” To achieve this, “the leader should carefully observe the employee’s specific abilities and interests ... so that the employee can develop his/her ideal identity that is compatible with the identity that is desirable in the workplace.” In so doing, they suggest, “the manager may ultimately treat all employees fairly, rather than equally” (p. 355).

The compatibility of the findings and recommendations of Lee, Kim and Kim’s research with Byron’s treatment of the principle of fairness is obvious. Their suggestion that an ethical manager sometimes needs to provide continuing opportunity and encouragement to underperforming employees even when it seems “unfair” to the employer in the short-run is consistent with the following approach advocated by Byron (2006, p. 74): “We cry, ‘Unjust,’ when corners are cut, the social structure is ‘out of plumb,’ or when things are simply not ‘on the up and up.’ You always have to be careful, of course, to control that tendency, when the scales are tipped against you, to ‘get even’ and to baptize mean-spirited and unfair revenge ‘in the name of justice.’ You can trick yourself into believing that avenging yourself by harming those who have harmed you is ‘right and just.’ That behavior is both obvious and unworthy; it is clearly inconsistent with your own human dignity.”

Allowing for second, third or more chances for employees to rise to their “ideal identity” may, indeed, be moving beyond simple fairness and into the last and ultimate ethical principle espoused by Byron – love. Quoting fellow Jesuit ethicist Lowney (2003), Byron (2006, pp. 181-182) argues that “love-driven

leadership” requires “the vision to (1) see each person’s talents, potential, and dignity; (2) the courage, passion, and commitment to unlock that potential; and (3) the resulting loyalty and mutual support that energize and unite teams.” The empirical support that Lee, Kim and Kim (2012) obtained for their hypotheses offers not only another voice in support of the applications of the principles of fairness and love in the hospitality industry but evidence that such ethical management practices engender the types of ideal employee behavior that can generate positive economic performance.

Ferreira, Maier and Johanson (2010) probed the impact of two economic downturns on food and beverage revenues in private clubs in the United States. A summary of their major result is “that private clubs reported a loss in their food and beverage operations in the ... fiscal years ending in 2010 and 2003, indicating the economic downturns during these periods had an overall negative impact on the food and beverage operations at private clubs” (p. 374). The authors proposed an array of strategies designed to “minimize the impact of a slow economic recovery following the recession of 2007-2010,” including offering “family-oriented programs,” focusing on member satisfaction, controlling prices with “resourceful menu planning, efficient food production and portion control methods,” introducing non-peak-time social events, providing variable price options for party events, “identifying potential repeat sales and new member business opportunities,” and reducing overhead through “staffing and operational efficiencies” (p. 375).

The proposed marketing and operational tactics make business sense under such economic conditions. What they do not implicitly demonstrate, however, is a shared concern with their customers and the communities in which they operate for the continuing plight that underlies the depressed expenditures not only in their sector but throughout the economy. “What ... can be expected of the economic ‘haves’” in such times, Byron (2006, p. 139) asked, writing of the social-responsibility principle. “Clearly there is an ethical responsibility to do something, and there may be an obligation in charity to do even more.” Patrons of private clubs, on average, probably qualify for the “haves” designation. While Ferreira, Maier and Johanson’s (2010) results suggest they experience some budget constraints, at least with respect to discretionary expenditures, they are probably not the logical target of the “obligation in charity” to which Father Byron alludes – but they may be willing partners in programs that recognize and seek to alleviate the plight of those suffering more intensely around them. Their response, if but modest financially, may be more substantial in terms of enhanced respect, appreciation and long-term loyalty to the organization in which they hold membership. As a research issue, at least, it is worthwhile examining the long-term social and economic benefits of adding a social-responsibility component to the operational and marketing strategies employed by food-service organizations serving upscale segments in challenging economic times.

Ozdemir (2012) conducted a scholarly analysis of restaurant menus and variables affecting their performance. “[C]hanges in menu offerings,” the article posits, “should fulfill the expectations and needs of existing and potential customers on the one hand, and should be consistent with the objectives of restaurant firm on the other hand” (p. 381). In what is presented as a “new way of thinking about menu performance” (p. 395), it observes that “popularity, profitability and cost” are the principal dimensions of ... menu performance” (p. 378) and offers propositions that those dimensions will be responsive to menu planning, pricing and design.

The incorporation of ethics into menu analysis does not require different dimensions or variables than those identified by Ozdemir, but surely menu planning, pricing and design may well be enhanced socially and economically by the explicit consideration of at least some of the principles identified earlier. Byron (2006, p. 69) writes that “transparency, clarity, and honesty ... will raise veracity to a new and higher level.” Transparency is more than meticulous avoidance of false or misleading information; it is a commitment to consistently providing customers with all the details relevant to their ability to make informed decisions that will lead to their satisfaction and welfare. Research on menu planning and design might examine the social and economic consequences of providing such details as calorie counts, ingredients that some may avoid for health, religious or other reasons, and sustainable sourcing.

Mathe (2012), in a study of an industry issue of clear relevance to social responsibility and the common good – food safety – arrived at the interesting conclusion that “lower labor costs result in greater ... food safety” (p. 398). That conclusion grew out of an inverse correlation between official food-safety-audit scores and labor costs in quick-service restaurants. Mathe’s rationale for that relationship is as follows: “with fewer and more experienced hands in the kitchen, there is less room for error since each employee is responsible for certain tasks and less job shifting occurs. With many hands in the kitchen the opportunity to make a mistake would be more common” (p. 403). She thus concluded that “higher levels of labor costs might actively detract from quick service restaurant performance ... in terms of food safety” (p. 409).

While Mathe's concern for food safety is to be applauded, in our opinion the conclusion that higher labor costs can lead to less food safety rests on dubious grounds and, if used by restaurant managers for staffing and food-safety planning, could put consumers at risk by making such determinations on the basis of potentially spurious criteria. How might such a pattern of results arise if higher labor costs do not have negative effects on food safety? Mathe examined the correlations among three variables: food safety, labor costs and gross revenues. In any food-service organization, it is to be hoped (and given the results of this study it is reassuring) that greater food safety is associated with higher revenue. One would hope such a result implies that consumers become aware of and are less likely to patronize restaurants with risky food-safety performance. The correlation between labor costs and gross revenue was found to be negative. We don't claim to understand why, as the author's explanation ("labor costs that are too high create inputs that do not provide output that improves average costs" – p. 406) says nary a word about revenue, but such is the case for whatever unexplained reason. If food safety and labor costs are positively and negatively associated with revenue, respectively, within that data set a negative association between food safety and labor costs is not surprising. It could be what statisticians refer to as a spurious correlation rather than a causal relationship. Looked at from a different perspective, there are labor issues that one might expect to be associated with food safety. For example, food-safety training – which comes with an indirect labor cost that would not have been captured in Mathe's analysis – may be expected to reduce unsafe food handling or other risky practices. Consistent quality monitoring, which could modestly increase labor costs, should also improve food safety. If decisions based on this study induce managers to reduce the very components of labor cost that enhance food safety, the results could be unfortunate and potentially disastrous. In short, the author would do well to remember the old statistical adage, correlation is not causation.

According to Byron (2006, p. 40), the principle of integrity requires the avoidance not only of deception but of "careless misrepresentation of information on which others may rely." Food-service scholars should be cautious about building causal inferences on correlational results that are not solidly grounded in theory and/or additional empirical evidence, especially when such inferences could lead to decisions that affect the health or well-being (be it physical, financial or emotional) of others.

Edelstein, Chiu and Molinski (2012) conducted a survey investigating "the perceived corporate culture of nutritional professionals." They summarized their findings as follows: "a great deal of corporate culture revolves around the interactions between manager and employee and that positive corporate culture is equated with good managerial practices. An effective manager leads to satisfied employees, resulting in a team that works together in a positive environment" (p. 411).

As an employer, Byron (2006, p. 98) noted, abiding by the principle of human dignity (upholding one's own and promoting that of one's employees) requires creating "an exceptional working atmosphere" that includes "challenging jobs with reasonable workloads, excellent support systems, a sufficient number of qualified associates to share the load, leaders who serve and a perspective that places faith and family first." The principle of workplace participation, he suggests, is grounded in one simple action – listening. He quotes Casey (1997, pp. 315-316) as follows: "Listen, listen, listen. If your mouth is open, you are not learning." Another key is "honest and open communication."

Edelstein, Chiu and Molinski (2012) arrived at their conclusions regarding the ingredients of a "positive environment" by isolating and measuring traits of communication between manager and employee that map well onto the characteristics of human dignity and workplace participation described by Byron: "How well the direct manager communicated with employees," "Whether the manager listened to employee's opinions on a regular basis," "If they were aware of what their manager was expecting from their work performance," "If the manager gave adequate support and worked as a team," "If the manager gave feedback to help improvement," "If the manager encouraged success by reducing fear of failure," and "If the manager was interested in their professional growth." Their measurement approach and their results elucidate and validate the importance of dimensions of human dignity and workplace participation in the foodservice industry.

A principle with the potential of bringing further clarity to research on working culture that promotes both social and financial performance is subsidiarity. Pollard (1996, p. 140) advocates that managers "[k]eep pushing down decisions" and "[e]rr on the side of delegation and not centralized control." Whether the employee be a nutritionist or a server in a restaurant, empowering decision making at the point of customer contact could potentially lead to more satisfied workers and customers. It is, at least, a

conceptual and empirical question that could appropriately be addressed in further work on corporate culture in the foodservice industry.

CONCLUSION

A review of hospitality literature revealed sporadic attention to and encouragement of ethics and social responsibility. The ten principles defined by Byron (2006) provide a useful framework for further conceptual development and empirical testing of the role of ethics in the mutual realization of economic and social performance within the industry. The examination the studies reported in one recent issue of a hospitality journal reveals both the increasing frequency with which such issues are being considered and the greater understanding that might accrue from the systematic consideration of those principles in future research.

As scholars plumb the depths of the relationships between economic and ethical/social considerations in the hospitality industry, an important consideration will be the moderating influence of legal and cultural variables in an industry that is becoming increasingly global. For example, to what extent are managers' proclivity to initiate and employees' and customers' responses to strategies motivated by the principles considered in this study a function of their predispositions with respect to cultural dimensions like individualism, uncertainty avoidance and long-term orientation (Hofstede, 1980, 2001; Hofstede and Bond, 1988)? Lord, Putrevu and Shi (2008) showed that they affect consumers' cross-border vacationing motivations, but the effects of these and other cultural constructs in moderating the influence of ethically and socially driven strategies on the economic performance of hospitality organizations has yet to be examined.

"Hospitality exists within lived experience," O'Gorman (2007) reminds us. "[I]t is a gift given by the 'host' to the 'guest,' and then shared between them.... [T]he true gift of hospitality is an act of generosity experienced by the 'guest,' which turns a stranger into a friend for a limited period of time" (p. 201). A single-minded focus on economic efficiency may help a restaurateur to keep serving for another day, but it is through the application of the principles ethics and social responsibility that such friendship is cultivated – and therein lies the basis for enduring success.

REFERENCES

- Byron, W.J. (2006). *The Power of Principles: Ethics for the New Corporate Culture*. Maryknoll, NY: Orbis Books.
- Caldwell, L. (1965). Private conversation reported in an interview with Brenda Caldwell Lord, March 1, 2013.
- Casey, A.V. (1997). *Casey's Law: If Something Can Go Right, It Should*. New York: Arcade.
- Edelstein, S., Chiu, D., & Molinski, C. ((2012). Corporate Culture and Nutrition Professionals. *Journal of Foodservice Business Research*, 15, 411-418.
- Ferreira, R.R., Maier, T.A., & Johanson, M. (2012). A Comparison of Impacts from Two Economic Downturns on Food and Beverage Revenues in U.S. Private Clubs. *Journal of Foodservice Business research*, 15, 362-377.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage Publications.
- Hofstede, G. (2001). *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations*, 2nd ed. Thousand Oaks, CA: Sage Publications.
- Hofstede, G., & Bond, M.H. (1988). The Confucius Connection: From Cultural Roots to Economic Growth. *Organizational Dynamics*, 16, 4-21.
- Iqbal, Q., Whitman, L.E., & Malzahn, D. (2012). Reducing Customer Wait Time at a Fast Food Restaurant on Campus. *Journal of Foodservice Business Research*, 15, 319-334.

- Jones, P., Comfort, D., & Hillier, D. (2006). Reporting and Reflecting on Corporate Social Responsibility in the Hospitality Industry: A Case Study of Pub Operators in the UK. *International Journal of Contemporary Hospitality Management*, 18, 239-240.
- Lee, M.J., Seongseop, S., & Kim, W. (2012). Service Employees' Organizational Citizenship Behaviors: An Accountability Theory Perspective. *Journal of Foodservice Business Research*, 15, 335-361.
- Lord, K.R., Putrevu, S., & Shi, Y.Z. (2008). Cultural Influences on Cross-border Vacationing. *Journal of Business Research*, 61, 183-190.
- Lowney, C. (2003). *Heroic Leadership: Best Practices from a 450-Year-Old Company That Changed the World*. Chicago: Loyola Press.
- Mathe, K. (2012). Food Safety, Labor Costs, and the Effects on Quick Service Restaurant Revenues. *Journal of Foodservice Business Research*, 15, 398-410.
- O'Gorman, K.D. (2007). The Hospitality Phenomenon – Philosophical Enlightenment? *International Journal of Culture, Tourism and Hospitality Research*, 1, 189-202.
- Ozdemir, B. (2012). A Review on Menu Performance Investigation and Some Guiding Propositions. *Journal of Foodservice Business Research*, 15, 378-397.
- Pollard, C.W. (1996). *The Soul of the Firm*. New York: Harper Business.
- Stevens, B. (2001). Hospitality Ethics: Responses from Human Resource Directors and Students to Seven Ethical Scenarios. *Journal of Business Ethics*, 30, 233-242.
- Tracey, J.B., & Hinkin, T. (1994). Transformational Leaders in the Hospitality Industry. *Cornell Hotel and Restaurant Administration Quarterly*, 35(2), 18-24.
- Upchurch, R.S. (1998). Ethics in the Hospitality Industry: An Applied Model. *International Journal of Contemporary Hospitality Management*, 10, 227-233.

AN ANALYSIS OF MUNICIPAL FINANCIAL MANAGEMENT IN SOUTH AFRICA

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ABSTRACT

The aim of this discussion paper was to investigate the practical and financial implications of municipalities in meeting the explicit goals of South Africa. Very limited research currently exists on municipalities in the South African context. The findings showed that the municipalities are not able to effectively manage the finances allocated to them. In addition we also found that the lack of proper leadership and inability to manage the necessary funds will have a direct impact on the service delivery of municipalities. Recommendations are made.

INTRODUCTION

The South African Constitution of 1996 constitutes the public sector in South Africa as National, Provincial and Local spheres of government which are interdependent, interrelated and distinctive. To prevent conflict between spheres and promote the concepts of interdependence and interrelationships, the principles of cooperative government and intergovernmental relations are set out in section 41 of the constitution. In particular those related to financial management are; effective, transparent, accountable and coherent government must be provided for the republic as a whole. The Constitution deals specifically with local government and determines the status of municipalities. A municipality must strive, within its financial and administrative capacity, to achieve its objectives. The purpose of the Municipal Financial Management Act (Act 56 of 2003) is to establish the basis for financial management that is essential to improve and sustain service delivery. Municipal councils are required to adopt credible budget with realistic revenue and expenditure estimates, accommodating all operational and maintenance costs expected by the municipalities.

Local government is that part of the public sector closest to the communities and is therefore indispensable in the role it plays in ensuring the delivery of municipal services. With the scarcity factor facing all three spheres of government in South Africa, municipalities exist with limited financial resources, receiving an equitable share from the national government and provincial while on the other hand it collects money from the community for service and goods rendered. All individuals with the responsibility of carrying out the duties set in the framework of finance of every institution must therefore recognise the need for efficiency and effectiveness in the municipality finance.

This paper investigates the practical and financial implications for meeting explicit goals of South Africa. South Africa has been labelled the protest city of the world. Protests are symbolic of a non-functioning local government. The protests are a legacy of the resistance struggle against the apartheid separate development. Service delivery protests have become a debated phenomenon. Poor leadership, especially in municipalities, as well as financial mismanagement has been reported in the media on a daily basis. The audit reports found +/- 95% of municipalities in the nine provinces of South Africa qualified on issues of managing finance.

BACKGROUND TO THE STUDY

The South African Local Government is made up of 226 local municipalities, which are there to deliver services effectively and efficiently. The Local sphere of government after the pre-1994 was essentially a service provider, but has since evolved in its roles, which include driving economic development as one of its objectives. Local government consumes more of funding from the national government, and use this money to provide for the services required by the communities, which are basic needs. The Municipal

Financial Management Act 56 of 2003: ensures that secure and sustainable management of the financial affairs of municipalities and other institutions in the local sphere of government is used effectively and efficiency, that is to maintain good financial administration in municipalities. The Local Government Municipal Systems Act, 2000 (Act 32 of 2000), establishes a framework for planning, performance management system, effective use of resources and organizational change in a business context.

Local government in South Africa are made up of various types of municipalities. The largest metropolitan areas are governed by metropolitan municipalities, while the rest of the country is divided into district municipalities, each of which consists of several local municipalities. Since the boundary reform at the time of the municipal election of 18 May 2011 there are 8 metropolitan municipalities, 44 district municipalities and 226 local municipalities. Municipalities are categorized into three groups:

Category A: municipalities that fall in this category, which are the single-tier 'metropolitan municipalities', have the exclusive municipal executive and legislature authority over their area of jurisdiction. Background to this form of municipal government was the fact that metropolitan urban governance requires an institutional set-up that is entirely different from municipal governance in smaller cities and rural areas. The rest of the country is divided up into **category B (local) municipalities** that share their authority with **category C (district) municipalities**. In other words, a number of category B municipalities make up category C municipality. The demarcation of municipalities prior to the first elections of the new Constitutional dispensation produced 226 local municipalities grouped together to form 44 district municipalities. (De Visser, 2005, p. 74)

CHALLENGES FACING SOUTH AFRICAN MUNICIPALITIES

The Municipal Structures Amendment Act of 2000 acknowledges the weaknesses of local municipalities (B) and re-allocated functions such as infrastructural development, bulk supply and services, from municipalities to districts (category C). As a consequence, districts are *de facto* confirmed as the main developmental and infrastructural operators and service providers in rural areas of South Africa (Perret, and Lhopitallier, 2000; Davids, 2003). Districts are given power over all municipalities under their jurisdiction, which includes ensuring the Integrated Development Programmes are developed (their own and the municipal ones), and building capacity where necessary. This poses some issues in terms of:

- accountability, since district staff does not represent the local population, or the elected individuals at municipal level;
- dependency, from a B municipality view point (especially on capacity building);
- reversibility, since some economy of scale made at district level (large areas) might not be duplicable at municipal level (much smaller size), whereas the Act stipulates that the power should be gradually put back at municipal / local level, as capacity grows;
- Participation, since increased distance and lack of communication do exist between districts and the local level.

Also, such design lies onto the assumption that districts do have the capacity in staff and skills to help local municipalities, which is not always the case (Davids, 2003).

Independence and the Revenue of Municipalities

Local rural municipalities derive about 40% of their income from national and provincial transfers (as compared to 8% for urban municipalities). Yet, their share of national revenue is 4%, in the form of the Equitable Share (Davids, 2003). The Equitable Share is a mandatory, non-conditional, entitlement, which means that Local Government can allocate and use it with limited control from national and provincial levels. Some observers insist that more Equitable share being directed towards local rural municipalities would be instrumental in making them more autonomous and efficient, and would release the pressure onto impoverished population (away from cost recovery objectives attached to water and electricity supply). The current situation reflects both a reluctant national government to actually decentralize, and the prevailing neo-liberal ideology (Naidoo & Veriava, 2003).

Actual Participation of Local Government

Participation has repeatedly been put forward by policy documents as a compulsory element of local governance and rural development as well, yet with various and discussable implementation features. Information, and sometimes consultation, has indeed been carried out (forums), but co-design, co-decision and actual partnership, as defined in Perret and Mercoiret (2003), have seldom taken place.

The 1994 Reconstruction and Development Programme forums raised enthusiasm among communities and civil society organizations (CSOs), which enthusiasm was not accommodated further by the then inexperienced local government (Davids, 2003). Even the recent Integrated Sustainable Rural Development Programme (ISRDP) points out community participation as key, yet with little mention to rural Non-Governmental Organisations (NGOs) and CBOs. Besides obvious lack of capacity and skills to actually organize participation by local municipalities, some objective hindrances do exist. Unlike urban settings, rural areas lack an active civil society (Greenberg, 2003). Furthermore, certain non-governmental initiatives were sidelined or ignored while drafting the ISRDS. Finally, participation of all rural areas meets physical and social hidden barriers (the poor cannot be easily reached, owing to remoteness and transportation issues, participation of women, the youth, the elderly may be socially sidelined) (Davids, 2003).

There are no doubts that rural South Africa and more especially former homeland areas (Bantustans), still lack basic services and infrastructures. Huge efforts and delivery have taken place since 1994, but there are still lots of needs left unattended. While the government tries to provide basic constitutional services (i.e. free basic water policy), it also tends to increasingly and contradictorily implement cost-recovery, “containing costs”, and “market-driven” principles (Hart, 2002). Rural people start to witness the shift away from mere “welfarism”, as a leading principle of emerging democratic South Africa, to a colder neo-liberal and deregulated approach (e.g. state withdrawal of agricultural support, subsidies and extension, “user-pays” principals applied to water supply, etc.). Certain private/public arrangements become uncertain, unsustainable and unattractive (Naidoo & Veriava, 2003).

Key questions remain as to how to promote Reconstruction Development with such contradictory objectives? How to avoid creating new forms of dependency for rural people, while also releasing pressure and unlocking opportunities for them? (Hemson *et al.*, 2004).

Implementing ISRDP within IDPs: sectoral temptations

The ISRDP Programme forms an opportunity for bridging rural development and local governance. It is supposed to harness and bring national and provincial means and capacity at local level. It is supposed to fit into the local IDPs, and to be driven by local municipalities. In spite of such a clear and rational framework, the first implementation stages that have taken place in some municipalities show certain flaws and setbacks:

- IDPs are often seen as outputs or products by both local policy makers, line departments, and development operators, whereas IDPs should be on-going processes, whereby participatory negotiation of development goals should play a major part;
- So far, many ISRDP bear no relation to the demands set out in local IDPs, but rather reflect potential deliverables from line departments, which often seem to compete with each other (for visibility purpose) rather than co-operate; hence some sectoral initiatives and projects that can be seen here and there, and which have little to do with integrated, demand-driven approach (Davids, 2003);
- Most municipalities have been selected on the basis of needs (as perceived by external observers), and of political lobbying and pressure, and not of potential (if any) or level of readiness (Everatt, 2003).
- Furthermore, the new municipalities; most initial time has been spent in capacity building at local government level, rather than on delivering.

ISRDP policy and implementation guideline documents repeatedly emphasize the notion of potential for development of rural areas where the municipalities have been located, i.e. in former homeland areas. Observers raise a number of issues regarding that notion of potential, as a basis for development policy and efforts:

- Former homeland areas had been specifically and purposively delineated during the apartheid era for their lack of potential for development (poor endowment in most natural resource) (Hart, 2002);
- Furthermore, all efforts seem to have focused onto despoiling them from development assets (poor institutions and economic environment, poor infrastructures, etc.);

- Agriculture keeps been pointed out as the first potential mover for development in rural areas (Brooks, 2000), whereas rural people themselves do not see agriculture as an answer to their plight (May, 1997);
- Urban areas absorb best-educated people, and most energetic layers of rural society (Hemson, Meyer, Maphunye., 2004); women, children, and the elderly are *de facto* key role players in rural areas;
- Putting forward the notion of potential for development (especially economic development as ISRDP implicitly puts it) relegates welfare and service provision to satisfy basic (constitutional) human needs as secondary matters.

Once again, the contradiction between welfarist and neo-liberal approaches is pointed out here (Davids, 2003; Naidoo & Veriava, 2003). In some instances and rural areas, it would be best to simply acknowledge the current lack of potential for economic development in the short term, and to focus on the severe backlogs in most infrastructures and services.

Financial Controls and the Sphere of Local Government

In analysing the municipal financial management in South Africa the above challenges become difficult to deal with because they are been exacerbated by the mismanagement of funds. Analysis of the audit outcomes of municipalities (including metros) and municipal entities reveals the following aspects (Audit General, 2010:4):

- The 53 municipalities that achieved improved audit outcomes are concentrated in KwaZulu-Natal (21%), Eastern Cape (18%), and Limpopo (17%). A majority of the 23 municipalities that reduced their number of disclaimed or adverse outcomes from the previous year are in Limpopo.
- Of the 79 municipalities that remained disclaimed or adverse from the previous financial year, 17(22%) are in the Free State, a further 17 (22%) are the Northern Cape and 15 (19%) are in the Eastern Cape.

Financial activities, which are usually repeated to achieve a given goal or set of goals articulated in element one of financial management system are threatened as province-to-province analysis of municipalities, audit outcomes of the 2008-09 report demonstrate. This status quo requires an improvement, since failure to manage public finances in certain municipalities means little or no public delivery to those that need it most. Consequently and at the receiving end are communities that continue to battle to meet basic needs (Ntonzima, 2011).

With the revelation of details of material losses/impairments, unauthorised expenditure, fruitless, wasteful and irregular expenditure, including material under-spending of budget and unspent governments grants by municipalities and municipal entities, acts to seriously tighten financial controls application cannot be overemphasised (Audit General, 2010:9), stated below is a summary of the above revelations:

- Material losses exceeding R5billion were incurred by 65(22%) audited;
- Unauthorised expenditure exceeding R2,4 billion was incurred by 82(28%) audited;
- Fruitless and wasteful expenditure of R117,4million was incurred by 92(31%) audited;
- Irregular expenditure amounting to some R2,3billion was incurred by 139(47%) audited;
- Under spending of budgets amounting to R1,5billion occurred at 28(9%) audited;
- Unspent government grants amounting to R1, 6billion occurred at 60% of audited.

What is questionable is regarding the above picture is role of the financial manager (a role that is played currently in many of the South African municipalities by a Municipal Manager and Accounting Officer) in each municipality, which is but one office that should be under control because of all the above-mentioned occurrences (Ntonzima, 2011).

THE AUDITOR-GENERAL'S VIEW ON THE CURRENT STATE OF SOUTH AFRICAN MUNICIPALITIES

According to the media release in the auditor-general of South Africa's website, it has stated the following:

- About 91% of the municipalities depended on consultants to balance their books while they employed staff to do the same job;

- Officials in key positions at about 70% of audited municipalities were incompetent.
- With the commitment of the leadership, any size municipality could achieve clean audits, as already proven by a few determined ones.
- government's interventions to address the skills gap, including coordination and commitment by all parties to implement legislation on minimum competency levels
- The lack of skills, the fact that numerous errors needed to be corrected by auditors during the audit, despite consultants that were brought in to assist municipalities having increased from 86% last year to 91% of municipalities in 2011. In addition, 13% of audits in a few provinces (North West, Northern Cape and Western Cape) had not been finalised in time for inclusion in the general report being released on the 23rd of July 2012
- Fruitless and wasteful expenditure – where money was spent and goods were not delivered or interest accrued on late payments – amounted to R260-million, up from R253-million in 2010. Unauthorised expenditure – where municipalities overspent on their budgets – remained high at R4.3-billion, compared with R6.3-billion in 2010.
- A lack of consequences for officials and political leaders for poor performance and bad action. Mayors and councillors in more than half of all municipalities were to blame for bad audits due to their reluctance to act on the auditor-general's recommendations after previous audits.
- Consistently committing to take ownership of municipal performance practices, insisting on adequately qualified staff and effective performance management practices
- With the commitment of the leadership, any size municipality could achieve clean audits, as already proven by a few determined ones

RECOMMENDATIONS

The small gains in good governance are undermined by the little provision of information to the public and lack of meaningful participation by the residents. It may be argued that there cannot be transparency and accountability in the management of public institutions unless the public know what the institutions are doing on their behalf and unless mechanisms for public participation, transparency and accountability are institutionalized. The positive effects on good governance in the municipalities, and indeed in all local authorities, can be further enhanced if the councils can provide pertinent information to the residents, the mechanisms for citizen participation are more institutionalized and if there is more meaningful participation.

The improvement of performance of municipalities require the national government to increasingly assume a significant role to ensure that adequate financial and non-financial resources, differentiation of capacity levels of municipalities and targeted interventions are both channeled and considered in order to effectively and progressively assist the local sphere of government achieve its constitutional imperatives.

- **Placing responsibility on management in power:** Responsibility should be vested in the manager in charge as every decision should run past him or her. This should not rest only on managers but also political heads as they are responsible in effective leadership and control.
- **Scan the geographical environment before Develop of budget:** The extent to which the municipality has on service delivery should be determined by the geographical environment. This will assist in the allocation of the right budget for the municipality to avoid providing large amounts of funds to municipalities that need less.
- **Development of continuous evaluation and reports:** Development of continuous evaluation can be imposed on all the financial spending and weekly reports to be made without having to wait for the full assessment of all financial activities. The municipalities should have a report on expenditure when it happens.
- **Continuous Training of financial management:** Continuous trainings should be developed to tackle the issues that official have in the practice of finance. The training should incorporate a practical acting role in performing duties that officials are exposed to in daily activities. The trading should also inform about the application of legislation regarding finances.
- **Performance indicators:** Performance should be the major aspect when it comes to functions of activities in the municipalities. There should be a performance chart to which it states the level of expected results that must be generated by official.

- **Restructuring of financial expenditures**

Developing better means of spending municipal finances can reduce expenditure by setting priorities to what items should be bought and that cost should be compared for fruitful expenditure. Municipalities in order to be regarded as the best governed municipalities should by far adopt more of the private sector functions and principles, by doing this they will be able to achieve their objectives and goals. The constitution and legal framework, established for municipalities should be contributing towards building a world class municipality. These can be only achieved through reasonable and attainable goals:

- There should be more flexibility within the municipal reporting levels; that decision making should be also trusted on subordinates.
- Municipal-community participation relationship should be introduced as a legal framework; by encouraging the involvement of communities in municipal matters
- More qualified graduate must be recruited in their different fields of specialisation, to ensure that there is more adequate human resources management
- There should be less of the political interference in the management decision making of the municipality
- There should be more clear actions and legal consequences to those who are corrupted
- The introduction of privately owned accounting firms will be more efficient in dealing with the financial matters in line with its legislation framework.
- No political deployment should be allowed, as this have an impact on the output of the municipalities.

CONCLUSION

It is vital for local municipality to have accurate financial statement in order to identify the growth within the municipality and that way also people know what has happened to the tax money. An incorrect inventory balance causes the reported value of assets and owner's equity on the balance sheet to be wrong. After all, Municipal government must be at the forefront of involving citizens in all aspects of governance and development by providing them with practical and effective opportunities for participation. In providing service delivery to the community at larger the most important factor to consider is the financial resources, therefore it is of great importance to acknowledge and adhere to the concerned legislature and procedures set out in the local sphere. Municipal finance administration therefore concerns the compliance and application of using tax payer's money.

Municipalities in South Africa are found to be disorganised in all the nine provinces of the country. This is very an alarming situation that our municipalities find themselves in; the financial management of the municipalities are not being controlled in very effective and efficiency manner by those who by law supposed to be managing these funds. The Auditor General in all the aspects in his report finds that municipalities are not managing its funds accordingly year after year. This is the mismanagement of the country's revenue and those who are found to have done wrong are not punished for their doings.

REFERENCES

Audit General, Report. (2010). Pretoria: Government Printers.

Brooks, K. (2000). *Improving opportunities for the rural poor in South Africa*. World Bank, Unpublished Working Paper.

Davids, I. (2003). Developmental local government: the rural context and challenges. *Development Update*, 4, 31-54.

De Visser, J. (2005). Developmental local government: a case study of South Africa. Western Cape: Intersentia. In Everatt, D. and Zulu, S. 2001 (Eds.). *Analysing rural development programmes in South Africa 1994- 2001*. *Development Update*, 3, 32-52.

Hart, G. (2002). *Disabling globalization – Places of power in post-apartheid South Africa*. University of California Press, Berkeley, Los Angeles, USA.

- Hemson, D., Meyer, M. & Maphunye, K. (2004). *Rural development: the provision of basic infrastructure services*. HSRC, *Integrated Rural and Regional Development*. Position Paper, Pretoria, South Africa.
- May, J. (1997). Experience and perceptions of poverty in South Africa. Fishwick, South Africa.
- Naidoo, P. & Veriava, A. (2003). People before profits? A review of development and social change. *Development Update*, 4, 67-88.
- Ntonzima, L. (2011). Can South African Municipalities Improve? *Journal of Public Administration: Public Financial Controls*, 46.
- Perret, S. & Lhopitallier, L. (2000). *An institutional analysis of public investment in rural areas: a case study in the Amatola District of the Eastern Cape Province*. Unpublished Working Paper, World Bank.
- Perret, S., & Mercoiret, M. R. (2003). *Supporting small-scale farmers and rural organisations: learning from experiences in western Africa. A handbook for development operators and local managers*. Protea CIRAD Publ, Pretoria: South Africa.
- Siegel, D.S. & Italian, D.F. (2006). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics and Management Strategy*, 16, 773-792.
- The Constitution of the Republic of South Africa (Act 108 of 1996). Pretoria: Government Printers.

FACTORS INFLUENCING THE USE OF INFORMATION AND COMMUNICATION TECHNOLOGY IN THE KENYAN HIGHER EDUCATION SECTOR

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ABSTRACT

Previous studies have shown that in the higher education sector, information and communication technology (ICT) provides the impetus for change from the traditional concepts of teaching and learning, as well as the prime motivation behind the change in scholarly and professional activities. Consequently, the aim of this study is to answer the empirical question of which environmental, technological, organisational and individual factors are most likely to influence choice behaviour for using ICT in student learning in Kenyan higher education. Path analysis statistical techniques in structural equation modelling (SEM) were used. The findings show that environmental, technological, organisational and individual factors play a significant role in ICT diffusion and infusion.

INTRODUCTION

Information and communication technology (ICT) artefacts such as the internet, the World Wide Web, email, and learning management systems (LMS) have become some of the major concerns of modern organisations, including higher educational institutions and multinational corporations (Ryan and Rao, 2008; Casal, 2007; Eynon, 2005; Ochara et al., 2008). Several researchers have posited that effective ICT adoption, diffusion, and infusion are critical for organisations, like universities, for the performance of their activities, which include learning, teaching, research, communication, and management (Aguila-Obra and Padilla-Mele'ndez, 2006; Peansupap and Walker, 2005; Yan and Fiorito, 2007; Fink and Disterer, 2006). The study of the barriers to ICT adoption, diffusion, and infusion in learning and teaching in the higher education sector has now become an area of interest to researchers (Al-Senaidia et al., 2009).

Consequently, university administrators, despite the meagre resources, are continuously investing in ICTs to support learning, teaching, management, and research and also to help deal with educational budget cuts (Cheung and Huang, 2005). The ICTs that are of specific critical importance to higher education institutions include the internet, email, administrative, and learning management systems.

Although information systems (IS) research on technology diffusion has flourished in recent years (Bagchi and Udo, 2010; Venkatesh and Bala, 2008; Al-Senaidia, et al., 2009), the problem of ICT diffusion and infusion in learning and teaching institutions of higher education is persistent (Al-Senaidia et al., 2009). A review of published literature shows that the majority of the studies that were conducted to determine the factors that influence the adoption and diffusion of ICT were done in various business-oriented sectors of the developed economies and only a handful of studies were done on the higher education sector (Peansupap and Walker, 2005). Most of the studies have ignored the factors that influence the adoption and diffusion of ICT in the education sector in general, and higher education in particular. Therefore, in the literature, the education sector, and especially higher education, is markedly absent in research on the technology acceptance of IS (Tubin, 2007; Uhomoibhi, 2006).

To address this gap, this study aims to answer the empirical question of which environmental, technological, organisational, and individual factors are most likely to influence choice behaviour for using ICT in student learning in Kenyan higher education.

LITERATURE REVIEW

The three major characteristics of the environment of higher education institutions that make ICT a critical component of their success and survival in a digital age are: the rapidly changing higher education landscape due to local and global forces; the demand for flexible learning and teaching by the diverse range of learners; and the challenge of delivering quality education.

This changing context of higher education, both in Kenya and internationally, presents new challenges for learners, lecturers, university management, and higher- education policymakers. The increased application of ICT in learning, teaching and research has been identified by Mostert and Quinn (2009) as one of the most ubiquitous recent major changes in higher education.

Minishi-Majanja (2007) established that in the higher education and human capacity-building sector, ICTs are the impetus for change from the traditional concepts of teaching and learning, as well as the prime motivation behind the change in scholarly and professional activities. Consequently, an acute need to determine how well these types of ICT are adopted by students and diffused and infused into their learning activities has been recognised recently by researchers (Siragusa and Dixon 2009).

To address quality education delivery, the importance of the use of ICT in fostering a paradigm shift for the provision of quality education within the higher education sector has been advocated by Yang (2008). As a result it is necessary that higher education institutions themselves search for ways to effectively train the students with the required skills and to guarantee that the students who graduate will be creative, competitive, and critical thinkers (Yang, 2008). ICTs are transformational tools which, when applied appropriately, can promote the move from the traditional teacher-centred to a learner-centred learning environment and, in turn, enhance the quality of higher education. One way in which ICT enhances quality is by motivating learners to be engaged in their learning. “ICT such as videos, television and multimedia computer software that combine text, sound, and colourful, moving images can be used to provide challenging and authentic content that will engage the student in the learning process and tele-collaboration” (Achimugu et al., 2010).

Kenya has ten public universities, namely the University of Nairobi, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology, Moi University, Egerton University, Masinde Muliro University of Science and Technology, Maseno University, Dedan Kimathi University of Technology, Technical University of Kenya and the Technical University of Mombasa. More than 20 private universities have different levels of accreditation status provided by the Commission for Higher Education (CHE).

It is evident from Table 1 that although a number of studies have been done on the library component of some universities, the subject of investigating the environmental, technological, organisational, and individual factors that influence the adoption, diffusion, and infusion of ICT by students in institutions of higher education has not been addressed adequately.

Table 1: Published ICT studies in higher education in Kenya 2000 – 2010

#	Author	Title of paper	Issues	Focus
1	Bii et al., 2001	Automation and its impact on the job satisfaction among the staff of the Margaret Thatcher Library, Moi University	Staff job satisfaction	Library
2	Mutula, 2001	The IT environment in Kenya: implications for libraries in public universities	IT in libraries	Library
3	Kavulya, 2003	Challenges facing information literacy efforts in Kenya. A case study of selected libraries in Kenya	Information literacy	Library
4	Minishi-Majanja and Ocholla, 2003	Information and communication technologies in library and information science education in Kenya	Library and information science education	Library

5	Kavulya, 2006	Trends in funding of university libraries in Kenya: A survey	Funding university libraries	Library
6	Kavulya, 2007	Training of library and information science (LIS) professionals in Kenya. A needs assessment	Training	Library
7	Odero-Musakali and Mutula, 2007	Internet adoption and assimilation in Kenyan university libraries	Internet adoption	Library
8	Ochara et al., 2008	Global diffusion of the internet XIII: Internet diffusion in Kenya and its determinants – A longitudinal analysis	Internet diffusion	Kenya
9	Waema and Mwamburi, 2009	Ex ante evaluation of information and communication technology projects: Case studies of Kenyan universities	Case studies	Kenyan universities
10	Macharia and Nyakwende, 2009a	Factors affecting the adoption and diffusion of internet in higher educational institutions in Kenya	Internet diffusion	Kenyan higher education
11	Macharia and Nyakwende, 2009b	Factors influencing diffusion of e-learning systems by students in Kenya's higher education	Diffusion of e-learning	Kenyan higher education
12	Macharia and Nyakwende, 2009c	Information and communication technologies (ICT) in higher education: Factors influencing adoption and diffusion by students in Kenyan universities	Information and communication technologies (ICT)	Kenyan higher education
13	Macharia and Nyakwende, 2009d	Gender differences in internet usage intentions for learning in higher education: An empirical study	Gender differences in internet usage	Kenyan higher education
14	Macharia and Nyakwende, 2010a	Vice chancellors' influence on academic staff intentions to use learning management systems (LMSs) for teaching and learning	Vice Chancellors influence	Kenyan higher education
15	Macharia and Nyakwende, 2010b	The influence of email on students' learning in higher education: An extension of the technology acceptance model (TAM)	Email influence on students learning	Kenyan higher education
16	Macharia & Nyakwende, 2010c	Influence of university factors on the students' acceptance of internet-based learning in higher education.	Internet-based learning	Kenyan higher education

Although e-readiness reports have their own limitations, the KENET (2007) e-readiness studies of higher education institutions (HEIs) in Kenya came to the following conclusions:

- HEIs are not ready to use ICT for learning.
- ICT is not yet a strategic priority for HEIs.
- ICT strategies have not been aligned with the educational and development goals of the HEIs.

RESEARCH METHODOLOGY

This study employed a descriptive research design, which was found appropriate because it corresponded with the purpose of this study. The purpose of this study was to investigate the influence of environmental, technological, organisational, and individual determinants of adoption, diffusion, and infusion of ICT, by students in higher education institutions in Kenya.

This design utilised a cross-sectional approach making use of a survey method that used a self-administered questionnaire for data collection. According to Sekeran (2003), a descriptive study determines and describes the characteristics of the variables of importance in a context. Further, in this study, a triangulation methodology was adapted in the study of ICT adoption, diffusion, and infusion. Approach triangulation was used where both quantitative and qualitative techniques were employed. Using a

qualitative approach, a review of existing literature on the subject matter – adoption, diffusion, infusion, and technology acceptance determinants and assessment mode – was done. In addition, a discussion of the instrument constructs was done with a panel of experts to improve its validity and reliability (Mangan et al., 2004).

The target population consisted of students from universities in Kenya. From this population, the actual sample of 1 800 student respondents was chosen. These students were from the original sample of 16 public and private universities, which were selected from 30 accredited universities by the Commission of Higher Education (CHE) in 2007. The units of analysis were the individual students from the departments in the selected sampled universities. Students who were officially enrolled in the respective schools were chosen. Because a key objective of this research was to understand the ICT diffusion factors and process, it was necessary to focus on university departments with a sustained ICT deployment history. Therefore, rather than use a random sampling approach, a purposive sampling technique was applied to select the participating schools/departments within a university in the sample that use ICT in the running of their academic programmes.

A total of 1 314 questionnaires were returned (73% response rate) of which 222 were excluded from the data analysis process, largely due to incomplete answers. Therefore a total of 1 092 questionnaires were usable. There were three separate sampling levels: firstly, of universities for inclusion in the study, secondly, of schools/faculty/departments in the selected universities, and thirdly, of individual students in the selected schools/faculty/departments. Public universities were selected because of the parallels between them and private universities in respect of ICT in universities. The commonality of programmes that use ICT and the student involvement of ICT in learning and teaching made them valid comparators for the Kenyan situation. The validity of the study would have been restricted if data were only collected from urban-based universities. Universities in the rural setup were chosen as suitable contrasts to urban universities because they have very low ISP/ICT vendors within their localities.

DATA DISCUSSION

A total of 1 800 questionnaires were distributed to the 16 sampled universities in Kenya. The response rate was 73%. Out of the total questionnaires returned, 222 questionnaires were excluded from the data analysis, largely due to incomplete answers, resulting in 1 092 usable questionnaires. The gender distribution was 51.65% male compared to 45.70% female. The majority of respondents fell into the age cohort of 30 years and below (83.42%). Among the participants, experience in the usage of LMS had the lowest mean of all the groups. Experience in using computers was higher than that of the internet, email, and LMS. The ICT usage was measured using self-reported scores where one unit of access to ICT was assumed to be approximately 1 ½ hours or 90 minutes, which is equivalent to one lecture period.

Table 2 represents the minima, maxima, means and standard deviations for the key variables in the research. Generally, the respondents in the sample strongly agreed that ICTs (internet/ World Wide Web, email, and LMSs) were useful (PU - mean = 5.740) in their studies. Further, they agreed that it was easy to use ICT (PEOU – mean = 5.42). Perceived Usefulness of ICT had the highest mean score of 5.74, while Computer Anxiety had the lowest mean score of 3.23.

Table 2: Descriptive statistics

Variable	N	Minima	Maxima	Mean	Std dev
CP – Competition Pressure	1092	1.00	7.00	5.0032	1.56811
GS – Government Support	1092	1.00	7.00	4.5760	1.59978
VS – Vendor/ISPs ICT Support	1092	1.00	7.00	4.7875	1.61589
SE – Perceived Socio-economic	1092	1.00	7.00	4.1419	1.79737
PU – Perceived Usefulness	1092	1.00	7.00	5.7408	1.44805
PEOU – Perceived Ease Of Use	1092	1.00	7.00	5.4263	1.27928
BIU – Behavioural Intention to use	1092	1.00	7.00	5.2585	1.36394
CSE – Computer Self-efficacy	1092	1.00	7.00	5.1371	1.44239
CA – Computer Anxiety	1092	1.00	7.00	3.2350	2.00206
PE – Perceived Enjoyment	1092	1.00	7.00	4.1712	1.10119

VOL – Voluntariness	1092	1.00	7.00	4.0941	1.64549
REL – Relevance to Studies	1092	1.00	7.00	5.4379	1.32960
AET – Accessibility To ICT	1092	1.00	8.00	4.5325	1.69141
AU – Actual ICT Usage	1092	1.00	8.00	4.7614	1.64670
PR – Perceived Resources (PR)	1092	1.00	7.00	4.1161	1.58494
PRT – Perceived Resources (PR)	1092	1.00	7.00	4.3697	1.62731
SN – Subjective Norm	1092	1.00	7.00	5.2357	1.30216
AVAIL – Availability of ICT	1092	1.00	7.00	4.5687	1.65869
OS – Organisational Support	1092	1.00	7.00	4.3403	1.52642
CEO – CEO Characteristics	1092	1.00	7.00	4.2149	1.26266
OR – Organisational Readiness	1092	1.00	7.00	4.6245	1.52791
TMS – Top Management Support	1092	1.00	7.00	4.8102	1.50186
Valid N (listwise)	1092				

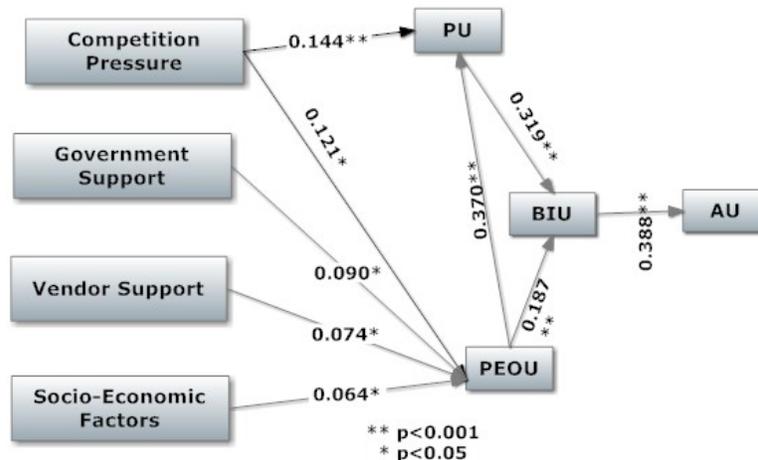
Influence of environmental factors

It is evident from Figure 1 that Competition Pressure (CP) has the greatest influence on PEOU ($\beta=0.121$, $p<0.05$), followed by Government Support (GS), Vendor Support (VS), and lastly Socio-Economic (SE) factors. On the other hand, Perceived Usefulness (PU) is only influenced by Competition Pressure (CP) ($\beta=0.144$, $p<0.001$). From the study results, we can conclude that Competition Pressure is the only factor that influences Perceived Usefulness, while Vendor Support and Government Support both influence Perceived Ease Of Use. The Socio-economic factor is the only environmental factor that positively and significantly influences both Perceived Usefulness and Perceived Ease Of Use. This is a remarkable finding since the technology-organisational-individual factors' models seem to have been neglecting this set of variables in their theorisation, methodology, and practice.

Influence of technological factors

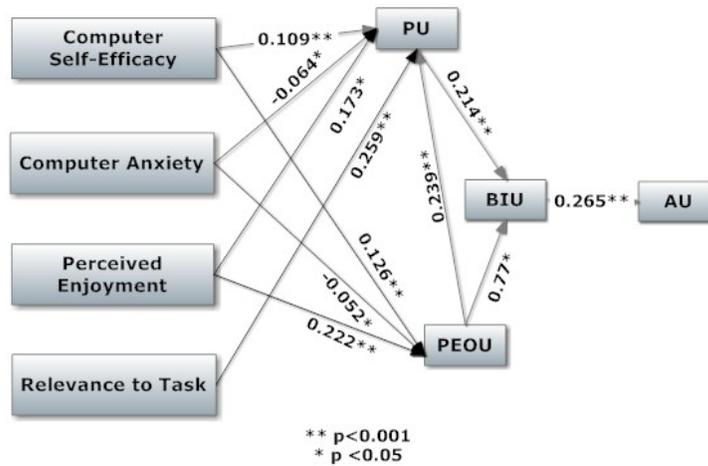
The participants in the survey sample strongly believed that ICT Relevance (REL) to their daily activities was a key factor in influencing their uptake of ICT (see Figure 2). At the same time, it was noted that Perceived Enjoyment (PE) towards ICT was one of the key influencing elements for a user's ICT uptake. The technological variables of Perceived Enjoyment and Relevance were positively correlated with both Perceived Usefulness and Perceived Ease Of Use. Furthermore, Computer Anxiety was negatively correlated to Perceived Ease Of Use. It can be concluded that: (1) Perceived ICT relevance to studies had the greatest significance influence on Perceived Usefulness of ICT by students, and (2) Perceived Enjoyment was the highest technological determinant of Perceived Ease Of Use and ultimately, intention and usage of ICT.

Figure 1: Model for environmental factors



PU = Perceived Usefulness, PEOU = Perceived Ease Of Use, BIU = Behavioural Intention, AU = Actual Usage

Figure 2: Model for technological factors

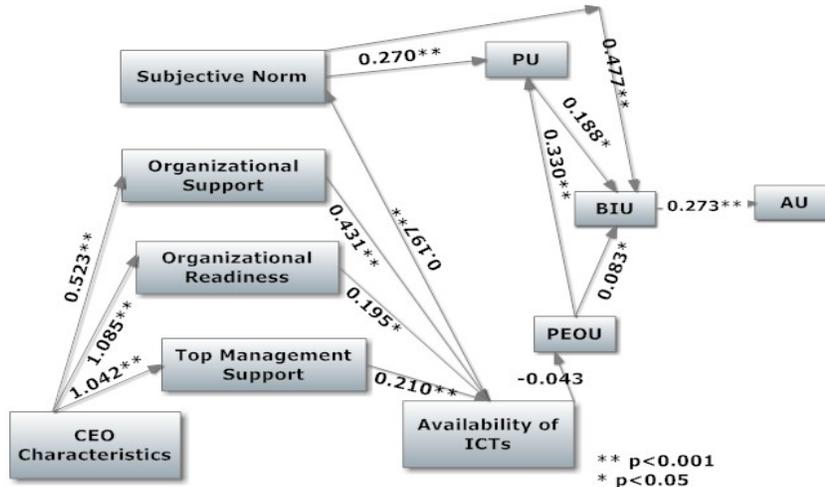


PU = Perceived Usefulness, PEOU = Perceived Ease Of Use, BIU = Behavioural Intention, AU = Actual Usage

Influence of organisational factors

The study reveals (see Figure 3) that institutional top leadership is required to lead ICT development in their institutions.

Figure 3: Model for organisational factors



PU = Perceived Usefulness, PEOU = Perceived Ease Of Use, BIU = Behavioural Intention, AU = Actual Usage

From the results of this study, the following can be concluded:

- (1) CEO characteristics significantly influence organisation support, organisational readiness, and Top Management Support.
- (2) Organisational Support has a significant influence on Availability of ICT.
- (3) Organisational Readiness has a significant influence on Availability of ICT.
- (4) Top Management Support has a significant influence on Availability of ICT.
- (5) Availability of ICT has a significant influence on Access to ICT.
- (6) Availability of ICT has a significant influence on Subjective Norm.

Influence of individual factors

The study recognised that while individual factors, Access to ICT and Perceived Time, had a positive and significant impact on user ICT adoption, diffusion, and infusion, the factor Perceived Resources did not (see

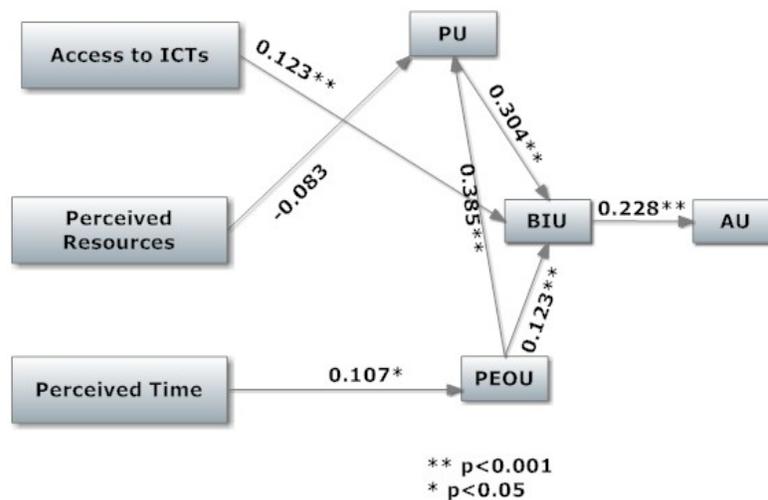
Figure 4). It can be concluded that Access to ICT for students to engage in ICT usage is the highest individual determinant of intention and usage of ICT. Secondly, the ICT that is offered for adoption, diffusion, and infusion should not only be useful for their daily activities, but also be easy to learn and use. ICT with a greater degree of complexity will decrease the uptake of the ICT. Therefore, the findings of this study conclude that (1) Access to ICT has a direct and significant influence on student Behavioural Intention to use ICT, and (2) Perceived Time has a significant influence on Behavioural Intention to use ICT.

CONCLUSION AND RECOMMENDATIONS

Some practical implications can be derived from the study. In the first place, the framework is dynamic in that out of a possible 130 factors that can be included in ICT diffusion models, a researcher can select the most relevant variables and plug them into the four sets of external variables for analysis. Prescriptively therefore, the study suggests that environmental, technological, organisational, and individual factors are responsible for driving ICT diffusion and infusion by individual users.

The results confirmed that Perceived Usefulness has a strong direct effect on Behavioural Intention. This suggests that the functionality of an ICT system must be emphasised to potential users. Researchers can help determine ways to do this effectively, and efforts should focus initially on greater internal training, management support, and Vendor Support. Education and training programmes should aim to increase awareness of potential applications and emphasise the benefits of using them. In addition, ICT system developers must address usefulness, as well as the ease of use, as an important design objective when developing systems. Ease of use also had a direct effect on use, as well as an indirect effect via Perceived Usefulness. This suggests that efforts to improve Perceived Ease of Use can have a strong influence on ICT in institutions of higher education. Since internal support, which includes internal training, influenced ICT diffusion, the need for institutions of higher learning to provide training for students to encourage them to use different ICT artefacts for their daily study activities, is highlighted.

Figure 4: Model for individual factors



PU = Perceived Usefulness, PEOU = Perceived Ease Of Use, BIU = Behavioural Intention, AU = Actual Usage

Another internal factor of even greater practical importance was Organisational Support. This may indicate that vendors, consultants, and educational institutions should provide formal computer education and training programmes specifically designed for higher education ICT users. Vendor Support had a strong influence on usefulness. Furthermore, Vendor Support had a much greater effect on usefulness than Government Support. Vendors and consultants are often reluctant to provide training to institutions of higher education ICT users because of the assumption that universities are knowledge towers. Thus, strategies are required to make Vendor Support more available in ICT deployment.

A possible strategy can involve a vendor-training component in the deployment of any new system. The vendor can provide IS support on a regular, possibly monthly basis for each institution. In addition, support and training sessions can be made available to institution users through an external information

centre that can be utilised and funded by many institutions. Alternatively, a government agency or an educational institution can operate this external information centre. Researchers can examine the effectiveness of such strategies aimed at providing external support to institutions of higher education.

LIMITATIONS

Firstly, the limitations concern the fact that the sample was drawn from one geographical location – Kenya. To generalise the findings globally a sample drawn from several developing nations, especially in Sub-Saharan Africa, and another from the developed world for comparison would have been more significant. Therefore, generalisability must be considered a concern. A second limitation is due to the cross-sectional nature of the research, including the quantitative data characteristics. Longitudinal studies would be helpful to compare adoption of the ICT over time.

MANAGERIAL GUIDELINES

The aim of the study was to answer the empirical question of which environmental, technological, organisational and individual factors are most likely to influence choice behaviour for using ICT in student learning. The study produced useful insights into the factors that influence technology acceptance decisions by students and provided new ideas in the understanding of ICT diffusion and infusion. The emergence of the role of CEO characteristics, Availability of ICT, and, Access to ICT in the adoption, diffusion, and infusion process by the individual in an institution is a major theoretical contribution which has practical ramifications.

Firstly, the CEO is the dominant influencing factor affecting Organisational Support, Organisational Readiness, and Top Management Support to an ICT implementation. This requires university top management to be the key drivers of ICT project implementation in their universities, if they want to increase the chances of successful adoption and utilisation. This will ensure adequate availability of resources that will enable the institution to make ICT available for student access.

The study calls for CEOs to have a higher level of commitment to any ICT implementation. This important theoretical relationship has significant practical utility, as there have been increasing concerns about the utilisation of ICT to facilitate learning, particularly enterprise systems that are inherently complex to understand and use (Venkatesh and Bala, 2008). Indeed, like many companies, higher education institutions have had several cases of enterprise system failures because of user resistance and underutilisation. This can only become worse in an institution where the system is not made available and accessible to the intended users.

REFERENCES

- Achimugu, P. Oluwagbemi, O. & Oluwaranti, A. 2010. An evaluation of the impact of ICT diffusion in Nigeria's higher educational institutions. *Journal of Information Technology Impact*, 10(1), 25-34. <http://www.jiti.net/v10/jiti.v10n1.025-034.pdf> Date of access: 28 Jun. 2010.
- Aguila-Obra, A. R. & Padilla-Mele'ndez, A. 2006. Organizational factors affecting Internet technology adoption. *Internet Research*, 6(1), 94-110. Available: Emerald.
- Bagchi, K. K. & Udo, G. 2010. An empirical assessment of ICT diffusion in Africa and OECD. *International Journal of Information Technology and Management*, 9(2), 162-184.
- Bii, H. K. Wanyama, & Patrick. 2001. Automation and its impact on the job satisfaction among the staff of the Margaret Thatcher Library, Moi University. *Library Management*, 22(6/7), 303-310.
- Casal, C. R. 2007. ICT for education and development. *Info*, 9(4), 3-9.
- Cheung, W. & Huang, W. 2005. Proposing a framework to assess internet usage in university education: an empirical investigation from a student's perspective. *British Journal of Educational Technology*, 36(2), 237-253.

- Eynon, R. 2005. The use of the internet in higher education: Academics' experiences of using ICT for teaching and learning. *New Information Perspectives*, 57(2), 168-180. Available: Emerald.
- Kavulya, J. M. 2003. Challenges facing information literacy efforts in Kenya. A case study of selected libraries in Kenya. *Library Management*, 24(4/5), 216-222. Available: Emerald.
- Kavulya, J. M. 2006. Trends in funding of university libraries in Kenya: A survey. *The Bottom Line: Managing Library Finances*, 19(1), 22-30. Available: Emerald.
- Kavulya, J. M. 2007. Training of library and information science (LIS) professionals in Kenya. A needs assessment. *Library Review*, 56(3), 208-223. Available: Emerald.
- Kenya Education Network (KENET). 2007. E-Readiness survey of higher education institutions in Kenya 2006. Nairobi. http://eready.kenet.or.ke/staging/E-readiness_survey_of_Kenyan_HigherEducation_June2007.pdf. Date of access: 8 Oct. 2008.
- Macharia, J. & Nyakwende, E. 2009a. Factors affecting the adoption and diffusion of internet in higher educational institutions in Kenya. *Journal of Language, Technology & Entrepreneurship in Africa*, 1(2), 6-22.
- Macharia, J. & Nyakwende, E. 2009b. Factors influencing diffusion of e-learning systems by students in Kenya's higher education. Proceedings from International Conference: VLIR-University of Nairobi Project, Health (RH), Computer Science (COSC), ICT/Library (ILIB). -5 February 2009, Naivasha, Kenya.
- Macharia, J. & Nyakwende, E. 2009c. Information & communication technologies (ICTs) in higher education: factors influencing adoption and diffusion by students in Kenyan Universities. Proceedings INTED 2009 conference, 9th – 11th. March 2009 (p. 1-12). Valencia, Spain: INTED.
- Macharia, J. & Nyakwende, E. 2009d. Gender differences in internet usage intentions for learning in higher education: An empirical study. Proceedings of the International conference on education. 8th -10th July 2009, Kenyatta University. Nairobi, Kenya.
- Macharia, J. & Nyakwende, E. 2010a. Vice chancellors influence on academic staff intentions to use learning management systems (LMS) for teaching and learning. *Journal of Languages, Technology & Entrepreneurship*. 2(1), 221-231.
- Macharia, J. & Nyakwende, E. 2010b. The influence of E-Mail on students' learning in higher education: An extension to the technology acceptance model (TAM). *Asian Journal of Information Technology*, 9(3), 123-132.
- Macharia, J. & Nyakwende, E. 2010c. Influence of university factors on the students' acceptance of internet based learning in higher education. *Journal of Communication and Computer*, 7(10), 72-81.
- Mangan, J., Lalwani, C. & Gardner, B. 2004. Combining quantitative and qualitative methodologies in logistics research. *International Journal of Physical Distribution & Logistics Management*, 34(7), 565-578. Available: Emerald.
- Minishi-Majanja, M. K. 2007. Integration of ICTs in library and information science education in sub-Saharan Africa. In proceedings of 73rd IFLA general conference and council. 19-23 August 2007, Durban, South Africa. <http://www.ifla.org/IV/ifla73/index.htm>. Date of access: 29 Jun. 2010.
- Minishi-Majanja, M. K. & Ocholla, D. N. 2003. Information and communication technologies in library and information science education in Kenya. *Education for Information*, 21, 243–262.
- Mostert, M. & Quinn, L. 2009. Using ICTs in teaching and learning: reflections on professional development of academic staff. *International Journal of Education and Development Using ICT*, 5, 5.
- Mutula, S. M. 2001. The IT environment in Kenya: implications for libraries in public universities. *Library Hi Tech*, 19, (2), 155-166. Available: Emerald.

- Ochara, N. M., Belle, J. P. V. & Brown, I. 2008. Global diffusion of the internet XIII: internet diffusion in Kenya and ICTs determinants – A longitudinal analysis. *The Communications of The Association for Information Systems*, 23(7), 123-150.
- Odero-Musakali, D. & Mutula, S. M. 2007. Internet adoption and assimilation in Kenyan university libraries. *Library Review*, 56(6), 464-475. Available: Emerald.
- Peansupap, V. & Walker, D. H. 2005. Factors enabling information and communication technology diffusion and actual implementation in construction organisations. *ITcon*, 10, 193.
- Ryan, C. & Rao, U. 2008. Functionality and novelty. Holiday users of the internet ease of use. *International Journal of Tourism Research*, 10, 329-339.
- Sekaran, U. 2003. Research methods for business. Singapore: Wiley & Sons, Inc.
- Siragusa, L. & Dixon, K. 2009. Theory of planned behaviour: Higher education students' attitudes towards ICT-based learning interactions. In Same places, different spaces. In proceedings of Ascilite Auckland 2009, p. 969-980. <http://www.ascilite.org.au/conferences/auckland09/procs/siragusa.pdf> Date of access: 29 Jun. 2010.
- Tubin, D. 2007. When ICT meets schools: differentiation, complexity and adaptability. *Journal of Educational Administration*, 45(1), 8-32. Available: Emerald.
- Uhomoibhi, J. O. 2006. Implementing e-learning in Northern Ireland: Prospects and challenges. *Campus-Wide Information Systems*, 23(1), 4-14. Available: Emerald.
- Venkatesh, V. & Bala, H. 2008. Technology acceptance model 3 and a research agenda on interventions. *Decision Sciences*, 39(2), 273-315.
- Waema, T. M. & Mwamburi, C. M. 2009. Evaluation of information and communication technology projects; Case studies of Kenyan universities. *International Journal of Computing and ICT Research*, 3(1), 65-76.
- Yang, Y. 2008. Examining university students' and academics' understandings of ICTs in higher education. In proceedings of the annual meeting of the Australian association for research in education, Brisbane, Australia, November 30, 2008 - December 4, 2008. <http://www.aare.edu.au/08pap/yan08183.pdf>. Date of access: 30 Jun. 2010.

LINKED DATA: TECHNOLOGIES AND OPPORTUNITIES IN HEALTHCARE

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ABSTRACT

The principles of Linked Open Data have been applied to a variety of knowledge domain areas in order to provide ease of access to developers and researchers and to provide a structure that allows semantically meaningful queries and interlinking to other related information. In this paper, we introduce the concepts and technologies involved with Linked Open Data and provide an overview of existing datasets, platforms, and applications, with a focus on healthcare and biomedical applications.

INTRODUCTION

One of the key problems in healthcare is that of data interoperability. There are a myriad of standards and proprietary representations, creating many “data silos” in healthcare. While this problem is well-known when it comes to electronic medical records and patient data, it is also a large problem with respect to public datasets of health information. Biomedical researchers often want to work with more than one dataset and have to spend a lot of time translating a myriad of formats. It also makes it difficult to build applications that utilize public datasets for patient-focused searches for medical information, such as drug side effects or clinical trials. Linked Data is a movement to overcome interoperability problems in all domains, and facilitate “smarter” ways of searching data, by using semantic web methods. Linked Data also focuses on tools to make it easier to publish large amounts of data in a standardized representation.

This paper focuses on the Linked Data concept, related technologies, and various areas of application. Particular attention is placed on utilizing linked data in the healthcare and medical fields. This year, 2013, celebrates the 20th anniversary of the open web which was made publicly and freely available by CERN in 1993. The World Wide Web was revolutionary since it enabled information to be published and accessed from anywhere across the globe. Since its inception, and to the present day, the WWW mainly consists of informative documents that are accessible over the Internet and are connected by established hyperlinks. The documents are primarily developed in HTML (Hypertext Markup Language), which specifies the way the information on the page is presented in a browser. HTML tags describe the design and look of a web page, rather than describe the information contained on the page. Most of the information on the Web is inter-meshed within HTML type documents, or available for download in a variety of formats. This web of documents has created this “global information space” (Bizer et al, 2009) that is so fundamental today across businesses and industries. However, there has recently been an emphasis on the need to publish structured and well-described data that can be linked to other data sources across the Web. Standards have been developed to create this “global data space” (Bizer et al, 2009) that enables data from various domains to be interconnected. The principles of Linked Data (Berners-Lee, 2006) form the foundation for a Semantic Web that is made up of defined, structured, and interconnected data.

LINKED DATA FUNDAMENTALS

One of the problems with the current Internet standard is that there is no way to represent the semantics of web resources. The HTML markup language describes the visual presentation of a resource and provides no means of representing the contents. This makes it difficult to build automated tools that are capable of intelligent search and query. For example, an Internet resource may contain information about dog breeds. A query facility that allows us to pose the question “Which breeds are used for hunting?” should be able to return information from this document. The HTML language describing this document; however, will only specify the layout of the document - that is, where images are located, which information is presented in

tables, which text serves as a header, and so on. Thus, an automated query facility would not be able to retrieve information from this page.

The Semantic Web, first proposed by Tim Berners-Lee in 1998 (Berners-Lee, 1998), is a set of technologies intended to overcome this problem. The idea is to represent information in an Internet resource in a standardized language which represents the contents of the resource. This language is known as the Resource Description Framework (RDF). A document encoded in RDF represents its contents in the form of triples which are simply predicates. An example might be <dachsund> <used-for> <hunting>. By representing all of the information in the document in these triples, it is possible to create automated reasoners that work with this representation. In reality, the representation of this data will be more complex since concepts like “dachsund”, which are considered to be resources, will have an associated Uniform Resource Identifier (URI), which is an Internet standard for naming entities. Besides RDF, a number of other technologies are standard components of the Semantic Web. XML is often used as a way to serialize RDF triples, leading to a standard called RDF/XML. The standard query language is called SPARQL. The query described above would be represented in SPARQL as: SELECT ?breed WHERE ?breed used-for hunting

Ontologies can be developed in the Semantic Web using a language called OWL (Web Ontology Language). And, of course, the underlying protocol for all of this remains the Internet standard HTTP. One of the main premises of the Semantic Web is that searches and queries can proceed across distributed documents, much as searches on the current Internet proceed. The key to this is the use of standard URIs. So, for example, a commonly used set of Semantic Web resources is FOAF, or Friend of a Friend, which is a public ontology describing people and their relationships to other people and to activities. A typical triple might look like this: @prefix foaf: <http://xmlns.com/foaf/0.1> .<foaf:person> <foaf:name> <”John Smith”>, which asserts that the name of a particular person is John Smith. Since the FOAF concepts all have a unique URI, they can be freely used in other RDF documents, which means that information about a person’s friendships can be integrated with other kinds of information. This ability to mix information from distributed sources is one of the most powerful capabilities of the Semantic Web, and leads to a powerful reason for publishing data in RDF on the open web. The term Linked Data refers to a paradigm for publishing data on the Internet using Semantic Web technologies, a set of best practices that leads to maximum interoperability. Tim Berners-Lee, inventor of the World Wide Web, defines four basic guidelines for Linked Data that outline how to publish data, link it to other related data, and enable it to be discovered by others (Berners-Lee, 2006).

1. Use URIs as names for things.
2. Use HTTP URIs so that people can look up those names.
3. When someone looks up a URI, provide useful information, using the RDF and SPARQL standards.
4. Include links to other URIs so that they can discover more things.

The last step, that resources should be linked to other URIs, is vital since it is these links between data (both internal and external links) that builds this data space for the semantic web. As of 2013, over 40 billion pieces of data have been published as Linked Data. Datasets vary from DBpedia, which is an RDF representation of Wikipedia, to the British National Bibliography, to RXNorm, which is a pharmacological terminology from the U.S. National Library of Medicine. So, if the Linked Data paradigm requires usage of technologies such as URIs, RDF and SPARQL, how is it different from the Semantic Web? The answer is that the Linked Data paradigm is a concrete means, governed by the W3C, of achieving the Semantic Web in a globally distributed fashion. Another point of confusion is the difference between Open Data and Linked Open Data. Linked Open Data (LOD) refers to data that is available under an open license and that is published to the Web with the Linked Data standards (Linking Open Data Project). On the other hand, Open Data, such as the many websites maintained by government agencies, may make data openly available but not in a format that can be linked easily to other datasets. A typical example might be data that is provided in CSV format uploaded from spreadsheets. This format does not contain information about the meaning of the contents and does not allow for SPARQL queries; thus it is not Linked Open Data.

RESEARCH ISSUES IN LINKED OPEN DATA

There are a number of issues that researchers are actively working to resolve. Since this is an effort to integrate many, large datasets from many organizations and countries, obviously differences in data representation can be a big problem. Merely converting all datasets blindly to RDF triples is not enough to ensure linkability, since different datasets represent concepts in varying ways. For example, one dataset might represent diseases simply as a simple text label, whereas another dataset may represent diseases in a structured fashion, with many subfields containing details about the disease. It can sometimes be a challenge

to determine if a concept in one dataset is really the same as similar concept in another. Approaches to alleviating this problem include the use of standard ontologies such as the Unified Medical Language System (UMLS), or the Translational Medicine Ontology (Dumontier, Andersson et al, 2010) which is being developed specifically for medical information in Linked Data. Another approach is to use automated tools for resolving conflicts. A number of these tools are described in the W3C report (Sahoo et al, 2009). Another issue is efficient processing of distributed SPARQL queries. One of the central premises of Linked Data is that datasets can reside anywhere in the Internet, but should be queryable in a transparent fashion. In order to do this, a query processor must be able to divide up the components of the SPARQL query and send subqueries to the relevant servers, finally then recombining all of the results. Examples of query processors that can do this are DARQ (Quilitz & Leser, 2008) and SemWIQ (Langegger et al, 2008).

Finally, issues of tracking provenance, and variation in licenses can be a problem, especially when building applications that integrate data from many datasets. This issue was recently explored by Rodriguez-Doncel (Rodriguez-Doncel, 2013). He found that of 338 Linked Open Data datasets that he explored, 132 had no license specified at all, 16 actually carried closed licenses, 5 carried licenses with restrictions, and the rest had various types of open licenses, such as licenses that specify that the data may be shared with attribution, or that require that the same license be carried on any work that used the data. This can pose problems for applications that freely navigate through the Linked Open Data cloud because the application must have an automated way of determining if a dataset can be used given its license restrictions.

LINKED DATA IN HEALTHCARE

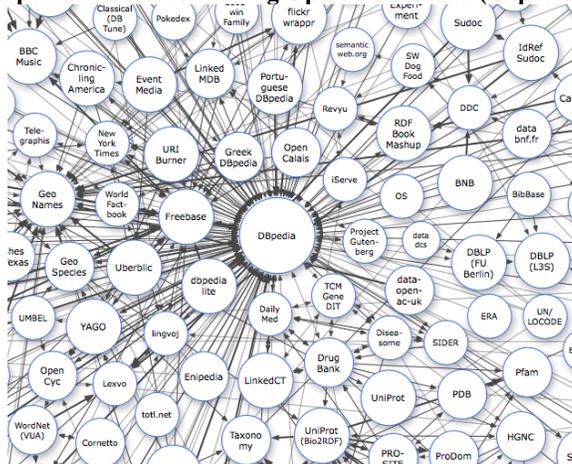
The healthcare, medical, and science fields have an enormous amount of diverse data that is housed across the globe in various kinds of institutions and organizations. Healthcare and biomedical informatics are leveraging this distributed knowledge by employing semantic web technologies (Dumontier, 2010). The biomedical field already has a vast amount of vocabularies, data standards, and knowledge bases, some of which are being made available as Linked Data. In order to establish standards and to promote the use of semantic web technologies in the biological and health sciences, the Semantic Web for Health Care and Life Sciences Interest Group (HCLSIG) was established under the auspices of the W3C in 2005. This group focuses on the development of core vocabularies that can bridge the many biological and healthcare vocabularies that already exist, on best practices for resource identification in the semantic web, and on scientific and scholarly publication (Semantic Web for Health Care and Life Sciences Interest Group (HCLSIG) Charter). The HCLSIG group contains a number of task forces that focus on specific projects. The BioRDF task force (HCLSIG BioRDF Subgroup) has developed standards for using RDF and OWL to represent, integrate, and query data in the life sciences and healthcare domains. Another example, the Linking Open Drug Data (LODD) task force is focused on enhancing pharmaceutical research by connecting drug and medical databases that are available on the Web (Samwald et al, 2011). Some of these datasets include: DrugBank, ClinicalTrials.gov / LinkedCT, RxNorm, UMLS, SIDER, among others. Linked Life Data (linkedlifedata.com) is a platform that facilitates semantic queries that can retrieve data from multiple biomedical resources; it is an integrated data warehouse that connects a variety of biomedical databases. In this paper, we will explore the applications of linked data in the healthcare and biomedical areas.

APPLICATIONS AND EXAMPLES

A variety of applications that are built on the principles of Linked Data have emerged. Many of these applications are specialized and dedicated to a specific knowledge domain, while others aim to be more general and encompass a broad knowledge base. DBpedia (Auer et al, 2007) is an example of a general knowledge platform that is based on extracting information from Wikipedia and making it available as Linked Open Data. Wikipedia is a very large and diverse resource that is constantly evolving; this makes it challenging to manage the data itself, in addition to the meta-data. DBpedia's strategy for extracting semantic relationships from Wikipedia takes advantage of structured information found in the articles, such as infobox templates, categories, geographical coordinates, links, and images. Pattern recognition techniques are used to find these templates, as well as other syntactic constructs used by Wikipedia for meta-data. Semantic relationships discovered in these structural elements, as well as relationships that exist in Wikipedia's relational database, are used to create RDF triples. The DBpedia dataset currently contains information on 3.77 million things, which are described by 400 million facts; DBpedia is also available in 111 different languages (The DBpedia Data Set). DBpedia now has its own ontologies that were developed based on common types of infobox information; classes include types such as Place, Person, Work, Species, and Organization, to name a few. The ontology is represented in a directed-acyclic graph and has 2,350,000 instances (The DBpedia Ontology). In keeping with the principles of Linked Open Data, DBpedia is

interlinked with many other open and relevant datasets by RDF links. DBpedia can be accessed as linked data with a semantic browser, through a SPARQL endpoint, as well as RDF dumps.

Figure 1: DBpedia within the Linking Open Data Cloud (<http://lod-cloud.net/>)



The Linked Open Drug Data task force (W3C Organization, The Linking Open Data Project), which is part of the W3C HCLS IG, has focused on identifying and publishing open access datasets in the area of pharmaceutical research as Linked Open Data. These datasets include the following: DrugBank (drug data), LinkedCT (clinical trials information), DailyMed (drug information), ChEMBL (drug information), Diseaseome (disease information), TCMGeneDIT (gene-disease-drug associations from Chinese medicine), RxNorm (drug information), UMLS (standard medical ontology), SIDER (adverse effects of drugs), STITCH (molecular interactions between chemicals and proteins), the Medicare formulary, and the WHO Global Health Observatory. These datasets will be described in more detail below. The datasets are all fully interlinked with each other and with other datasets published by other groups in Linked Open Data format. One of the main contributions of the LODD group, besides publication of the datasets, was to develop a set of best practices for the publication of this type of data. One of these is the use of semantic link discovery methods for creating the links between datasets. These methods use approximate string matching to determine whether a concept in one dataset is the same as a concept in another dataset. Unfortunately, the labels used in different datasets may have variations in spelling; this is why approximate matching must be used. For example, in LinkedCT, there is a concept labeled “Alzheimer’s disease”, while in Diseaseome, the analogous concept is labeled “Alzheimer_disease” (W3C Organization, Linking Open Drug Data (LODD)). Automated link discovery tools must be able to determine that these two concepts should be linked with each other. A number of automated link discovery tools were developed as part of the LODD project, in particular, LinQuer (Hassanzadeh, Xin et al, 2009) which works with relational databases, and Silk (Volz, 2009), which discovers links between data sources. The following diagram, from the LODD website, shows the interlinking between LODD datasets.

The individual datasets within the LODD project contain a diverse set of information useful to medical researchers and practitioners. Here, we will further describe them. Since the purpose of this platform is to publish datasets that support pharmaceutical research, most of the datasets pertain to pharmaceutical information. For example, DrugBank (Knox et al, 2011), which is provided by the University of Alberta, combines detailed drug information with drug target information such as sequence, structure, and pathway. The dataset contains 6729 drug entries, as well as 4254 non-redundant protein sequences which are linked to the drug entries. The drug entries are very detailed, containing 150 data fields. This resource is widely used, with more than 4 million page visits per year, by pharmacists, researchers, doctors, and the general public. Another drug-oriented dataset is RxNorm (Nelson et al, 2011), which is a standard nomenclature provided by the U.S. National Library of Medicine. It contains over 166,000 unique drug names and ingredients, derived from FDA databases. Unfortunately, due to licensing only 6 of the 12 drug vocabularies in the RxNorm dataset can be made available as part of the LODD cloud. DailyMed (U.S. National Library of Medicine) is also from the U.S. National Library of Medicine and contains information about 4000 medications, including information obtained from the package inserts. SIDER (Kuhn, 2010) also is based on medication package inserts, but focuses on reports of side effects included in those inserts. It contains around 63,000 adverse effect reports. There are also non-drug-related datasets within LODD. One of the most important is LinkedCT (Hassanzadeh & Kementsietsidis 2009), which is derived from the

collaborating with the National University of Singapore on a project which uses the Open Data platform to create a sensor network for home-based patients for disease prevention and management (Benn, 2013). Data from the sensors will be stored on this cloud based platform, and can be combined with medical information from other Linked Open Data datasets to provide more information for physicians using the system. Even more importantly, the data from the sensors, anonymized to protect privacy, will be published as Linked Open Data, providing an enormous dataset for medical researchers. There are an increasing number of research efforts that use the data integration capabilities of Linked Open Data. One example is OpenTox (Willighagen et al, 2011), which uses computational methods to predict toxicities of drugs. This is an area in which multiple biological and chemical information sources need to be integrated. The OpenTox platform is based on Linked Open Data and supports toxicology model building. It has several interfaces: a SPARQL query interface, a web service interface that provides descriptor values for a given molecule, and a scripting language that allows interactions to be automated. The THESEUS Medico project (Sonntag et al, 2010), which focuses on semantic search for medical images, uses medical linked data to identify relationships that are important for annotating and searching radiology images. For example, a radiologist inspecting images produced from scans of a lymphoma patient may want to determine if a shrinking lymph node was caused by a new medication. If the images have been annotated with links to data, this query can easily be answered in the system. The application uses the Linked Open Drug Data platform described earlier, and specifically draws on the datasets DrugBank, Disasome, and DBpedia, and links these with two semantic resources for radiology and anatomy. This information is used to annotate the medical images.

CONCLUSIONS AND FUTURE WORK

The Linked Open Data movement clearly shows a lot of potential for healthcare and biomedical informatics specialists, especially in the area of public health. The uniform, semantic representation allows data from various data sources to be freely recombined and integrated, using a standard query language. This will make it much easier to build mashups based on large quantities of healthcare information. For example, consumer applications that annotate mentions of drug names in healthcare articles with additional information on side effects or molecular pathways can easily be built. Since government data is increasingly published as Linked Open Data, one could envision mashups that combine public health data with other public data - for example, linking cancer occurrence statistics with data on locations of different types of businesses. There are, however, a number of issues that need to be overcome. More tools to automatically convert data locked in proprietary formats to RDF need to be built. Tools that allow minor differences in terminology to be resolved need to be built as well. Better methods for processing queries made across globally distributed datasets are needed. And finally, there are licensing issues to be worked out since even different datasets, even public ones, are published under varying types of licenses. However, researchers are actively working on all of these problems, and large companies such as Fujitsu and Pfizer are becoming interested and involved in the concept. There is much promise here for making large stores of health and biomedical information easily accessible to more people across the world.

REFERENCES

- Auer, S., Bizer, C., Lehmann, J., Kobilarov, G., Cyganiak, R., & Ives, Z. (2007) DBpedia: A nucleus for a web of open data. In Proceedings of the 6th International Semantic Web Conference and 2nd Asian Semantic Web Conference (ISWC/ASWC2007), vol. 4825 of LNCS, Springer, 715-728.
- Belleau, F., Nolin, M.-A., Tourigny, N., Rigault, P., & Morissette, J. (2008) "Bio2RDF: towards a mashup to build bioinformatics knowledge systems.," *Journal of Biomedical Informatics*, vol. 41, no. 5, 706-16.
- Benn, N., Menday, R., & Matsutsuka, T. (2013) "LOD Approach to Creating Health-Sensor Datasets Built on Big Data and Graph storage technology," *Open Data on the Web Workshop*, 2013.
- Berners-Lee, T. (2006) "Linked Data - Design Issues," Retrieved May 1, 2013, <http://www.w3.org/DesignIssues/LinkedData.html>
- Berners-Lee, T. (1998) "Semantic Web roadmap," Retrieved May 1, 2013, <http://www.w3.org/DesignIssues/LinkedData.html>
- Bizer, C., Heath, T., Berners-Lee, T. (2009) "Linked Data—The Story So Far," *International Journal on Semantic Web and Information Systems* 5 (3): 1-22.

- Dumontier, M. (2010) "Building an effective Semantic Web for health care and the life sciences," *Semantic Web*, vol. 1, 131–135.
- Dumontier, M., Andersson, B., Batchelor, C., Denney, C., & Domarew, C. (2010) "The Translational Medicine Ontology : Driving personalized medicine by bridging the gap from bedside to bench," in Proceedings of the 13th ISMB'2010 SIG meeting "Bio-ontologies", 120–123.
- Goh, K.I., Cusick, M.E., Valle, D., Childs, B., Vidal, M., Barabási, A.L. (2007) The Human Disease Network, *Proc Natl Acad Sci USA* 104:8685-8690.
- Hassanzadeh, O. & Kementsietsidis, A. (2009) "LinkedCT: A linked data space for clinical trials," *arXiv preprint*.
- Hassanzadeh, O., Xin, R., Miller, R.J., Kementsietsidis, A., Lim, L., & Wang, M. (2009) Linkage Query Writer. *Proc. VLDB Endow.* 2, 2 (August 2009), 1590-1593.
- Heath, T. & Bizer, C. (2011) "Linked Data: Evolving the Web into a Global Data Space," *Synthesis Lectures on the Semantic Web: Theory and Technology*, vol. 1, no. 1, 1-136.
- Knox, C. et al. (2011) "DrugBank 3.0: a Comprehensive Resource for 'omics' Research on Drugs.," *Nucleic Acids Research*, vol. 39, Database issue, D1035–41.
- Kuhn, M., Campillos, M., Letunic, I., Jensen, L.J., & Bork, P. (2010) "A side effect resource to capture phenotypic effects of drugs.," *Molecular Systems Biology*, vol. 6, p. 343.
- Langegger, A., Woss, W., Blochl, M. (2008) "A semantic web middleware for virtual data integration on the Web", Proceedings of the 5th European Semantic Web Conference, vol. 5021 of Lecture Notes in Computer Science, Springer-Verlag (June 2008), 493-507.
- Momtchev, V., Peychev, D., Primov, T., & Georgiev, G. (2009) "Expanding the Pathway and Interaction Knowledge in Linked Life Data," In *Proceedings of International Semantic Web Challenge*.
- Nelson, S.J., Zeng, K., Kilbourne, J., Powell, T., & Moore, R. (2011) "Normalized names for clinical drugs: RxNorm at 6 years.," *Journal of the American Medical Informatics Association : JAMIA*, vol. 18, no. 4, 441–8.
- Quilitz, B. & Leser, U. (2008) "Querying distributed RDF data sources with SPARQL", Proceedings of the 5th European Semantic Web Conference, vol. 5021 of Lecture Notes in Computer Science, Springer-Verlag (June 2008), 524-538.
- Rodríguez-Doncel, V. (2013) "How Open is the Linked Open Data Cloud?", May 29, 2013 blog post, available at <http://www.licensius.com/blog/lodlicenses>.
- Sahoo, S. et al. (2009) "A Survey of Recent Approaches for Mapping of Relational Databases to RDF", w3C organization, available at: http://www.w3.org/2005/Incubator/rdb2rdf/RDB2RDF_SurveyReport.pdf.
- Samwald, M. et al. (2011) Linked open drug data for pharmaceutical research and development. *J Cheminform.* 2011;4(1):19.
- Sonntag, D., Wennerberg, P., & Zillner, S. (2010) "Applications of an ontology engineering methodology accessing linked data for dialogue-based medical image retrieval," in *AAAI*, 120–125.
- Volz, J., Bizer, C., Gaedke, M., & Kobilarov, G. (2009) Silk – A Link Discovery Framework for the Web of Data. 2nd Workshop about Linked Data on the Web (LDOW2009), Madrid, Spain, April 2009.
- Willighagen, E. L., Jeliaskova, N., Hardy, B., Grafström, R.C., & Spjuth, O. (2011) "Computational toxicology using the OpenTox application programming interface and Bioclipse," *BMC Research Notes*, vol. 4, no. 1, 487.

Fujitsu Laboratories, "Fujitsu and DERI Revolutionize Access to Open Data by Jointly Developing Technology for Linked Open Data," press release on April 3, 2013, <http://www.fujitsu.com/global/news/pr/archives/month/2013/20130403-02.html>.

The DBpedia Data Set, retrieved on May 1, 2013, <http://wiki.dbpedia.org/Datasets>.

The DBpedia Ontology, retrieved on May 1, 2013, <http://wiki.dbpedia.org/Ontology>.

HCLSIG BioRDF Subgroup, BioRDF, retrieved May 1, 2013, http://www.w3.org/wiki/HCLSIG_BioRDF_Subgroup.

Linked Life Data - A Semantic Data Integration Platform for the Biomedical Domain, retrieved April 30, 2013, <http://linkedlifedata.com>.

The Linking Open Data cloud diagram, 2011-09-19, retrieved May 1, 2013, <http://lod-cloud.net/>.

Semantic Web for Health Care and Life Sciences Interest Group (HCLSIG) Charter, retrieved May 1, 2013, <http://www.w3.org/2001/sw/hcls/charter.html>.

U.S. National Library of Medicine, DailyMed, retrieved May 1, 2013, dailymed.nlm.nih.gov/dailymed/.

U.S. National Library of Medicine, Unified Medical Language System (UMLS), retrieved May 1, 2013, <http://www.nlm.nih.gov/research/umls>.

W3C Organization, HCLSIG/LODD/Interlinking, retrieved May 1, 2013, <http://www.w3.org/wiki/HCLSIG/LODD/Interlinking>.

W3C Organization, The Linking Open Data Project, retrieved May 1, 2013, <http://www.w3.org/wiki/SweoIG/TaskForces/CommunityProjects/LinkingOpenData>.

W3C Organization, Linking Open Drug Data (LODD), retrieved May 1, 2013, <http://www.w3.org/wiki/HCLSIG/LODD>.

MOVING TOWARD SUSTAINABLE HOUSEHOLD FOOD-PRODUCTION SYSTEMS: CONSTRAINTS AND CHALLENGES IN RURAL SOUTH AFRICA

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ABSTRACT

Rural households' food production provides the foundations on which transformation of the socio-economic conditions and sustainable food security for the poor can be realised. Households produce food for their own consumption and in some cases for selling in order to improve their food and income security. The attainments of these securities assist the household to avoid dependence on external food production channels and food production sources which can be expensive and unaffordable. However, like any other development activity, rural households' food production systems have been subjected to different challenges and constrains. Drought, floods, pest attacks and limited labour are some of the main challenges that the poor rural households are battling with daily. These challenges delay the process of crop production and/or destroy the plants and animals that the household produces and are rearing for food. This paper argues that without a formulation of remedial well-thought strategies and tactics directly targeting diverse challenges and constrains of households' food production process, sustainable food security for the poor will remain a pipe-dream. The paper discusses complex challenges and constraints that are faced by households throughout their food production system. The paper concludes that in order for South African government to attain a sustainable food security for the poor, its strategies and intervention need to directly target the constrains and challenges that poor households are facing.

INTRODUCTION

In recent years, food security has been subjected and heavily tied to market forces that are prejudiced by the socio-economic and political conditions of the society in which they live (Stocking, 2003; Misselhorn, 2005; Pretty, Thompson & Hinchcliffe, 2008; Thornton, Jones, Ericksen & Challinor, 2011). These mentioned conditions and deciding factors are seen to be hostile in rural areas and have left the majority of poor people suffering from hunger and starvation. Stocking (2003) argues that, with these inevitable socio-economic challenges, the majority of rural communities particularly in the tropics and subtropics have been experiencing a decline in household food production, with sub-Saharan Africa and parts of Latin American, the Caribbean and central Asia suffering worse. Also, global inequality in food entitlements, For instance, people's ability to acquire food and gain access to and control of production resources has remained a biggest obstacle to achieve food security for all (Pretty et al., 2008). The direct causes of the inadequate food access are poverty, environmental stressor and conflict. Hence, addressing the social factors surrounding food security serves as a window through which we observe the complexities and challenges emerging from competing structures of production and consumption (Misselhorn, 2005; Pretty et al., 2008). In order to address the question of sustainable food production successfully, this paper is structured in four parts, which includes a discussion on households' food production and security in rural areas, considering adopted systems, technology used and other major aspects of food production in rural areas. The highlight of the environmental context in rural areas and its role as an enabling factor for a sustainable food production is also discussed. Challenges and constrains that are associated with food production are also discussed with a reflection of the crucial steps to be taken on the quest towards the adoption of sustainable food production. Lastly the paper concludes on the strategies and intervention that are needed to directly target constrains and challenges of food production providing recommendations for a successful and sustainable food production systems in rural areas.

HOUSEHOLD FOOD PRODUCTION AND SECURITY

Food security is seen as less sufficient global and national agricultural production, and increasingly as livelihoods that are sufficient to provide enough food for individuals and households through their own production (International Food Policy Research Institute (IFPRI), 2002; Stocking 2003; Pretty et al., 2008; Olawepo, 2010). These production systems is usually characterised by poverty, small holdings, simple implements are used to cultivate, and land fragmentation is on the increase (Olawepo, 2010). However, according to Pretty et al. (2008) technology such as irrigation and improved crop varieties has changed the situation for few people but insecurity still prevails for the poorest and most vulnerable. Two identifiable types of food production in rural areas are livestock farming and crop production.

Livestock Farming in Rural Areas

Livestock farming as a means of producing food is common amongst households in rural areas. It contributes to household subsistence needs in many ways; for example, slaughtered livestock provide meat for home consumption, while other animals such as chickens may produce eggs (Calzadilla, Zhu, Rehdsans, Tol, & Ringler et al., 2009). According to Ayinde et al. (2010), growing of livestock such as chickens and other birds in rural areas is less costly to acquire and maintain; hence, they are easily to slaughter for immediate consumption within the household. Furthermore, chickens and other small animals survive solely on scavenging; possibly being fed with some kitchen scraps and very little attention is given to health care or management. The other most common animals reared by households in rural areas include cattle, buffaloes, sheep, goats and pigs. Traditionally, animals such as cattle are kept as draught animals with milk as a by-product and buffaloes as dairy animals (Khan & Usmani, 2005). According to Calzadilla et al. (2009), most rural areas do not meet the requisite preconditions for livestock production, especially grazing land and pastures for animal feed. Without optimum feeding, animals do not produce up to their production potential and are vulnerable to various diseases (Khan & Usmani, 2005). The most common animal diseases experienced in rural areas are internal parasite, rabies, indigestion and foot/mouth disease (Khan & Usmani, 2005). With all these constrain to raise livestock, many households tend to focus more on crop production as their main strategy to secure food.

Crop Production in Rural Areas

Crop production in rural areas is characterised by very low yield due to lack of irrigation supplements (Calzadilla et al., 2009). Crop production is rain-dependent in most of rural areas and when rain is scares the households usually have minimal harvesting. The major food crop produced by households includes maize, sorghum, potatoes, beans and vegetables. According to Olesen & Bindi (2002), the crops produced by households particularly in rural areas are vulnerable to excessive heat that ultimately destroys them. The heat and drier soil conditions in these areas increase the vulnerability of crops to wind erosion and evapotranspiration (Calzadilla et al., 2009). Crop production is largely subsistent, hence it is practiced with less productivity enhancing inputs and yields. Calzadilla et al. (2009) identified lack of improved seeds, pest attacks and weed infestation as the major constraints facing crop production, particularly in rural areas. The limited availability of land is also a major concern in rural areas. The success of crop production in these areas relies on small piece of land that many households own in their backyard and in most cases such land in already degraded because of mismanagement and over-cultivation. Hence, the environmental conditions play a major part in the success and/or failure of food production in rural areas.

ENVIRONMENTAL CONTEXT IN RURAL AREAS

The environmental condition in rural areas plays a major part in determining the ability of households to produce their own food. Hence, the challenges that are faced in these areas reflect the interrelationship among resource change, human productive activities and the accompanying transformation of people's lives (Rozelle, Huang & Zhang, 1997; Hinrichsen, 2000; Olesen & Bindi, 2002). In practical reality, the poor people endured degraded environments, to which they often contribute further degradation (Blaikie, 1985). The poor often destroy their immediate environment by cutting down forest, their livestock overgraze grassland and they overuse marginal lands to produce food for survival. This situation has meant that, natural resources becomes under increasing pressure in rural areas, threatening health and development of food production and security. Water shortages, soil exhaustion, loss of forest and water pollution afflict many rural areas (Hinrichsen, 2000). Also, as Olesen & Bindi (2002) indicated, the high rate of population without the improvement of the standard of living, provision of services and employment has posed a threat and contributed to the deteriorating environmental conditions in rural areas. Moreover, degradation of land

for agriculture, forest and wetland resources has extended the depth and breadth of deprivation in many rural areas. The severities of the environment problems in rural areas are dependent not only on their cause but also on the vulnerability of the specific natural resource setting. For instance, most poor rural households practice food production in mountainous land and hilly regions which are vulnerable to soil degradation (Olesen & Bindi, 2002). Such places are mostly dry, open and vulnerable to erosion either when it is windy or when there are floods and with over-cultivation, soil exhaustion inevitably occurs (Olesen & Bindi, 2002). The environmental conditions in rural area expand the space on common obstacles and challenges which are associated with food production and security.

CONSTRAINTS AND CHALLENGES OF FOOD PRODUCTION AND SECURITY

The ability of agricultural production to provide for and support the growing population has been a concern for generations and continues to be a number one priority on the global policy agenda (Thornton et al., 2011). The challenges associated with this sector are immense, and have threatened the production based resources in a form of loss of water through contamination, loss of genetic resources, habitats and species, adverse impacts of pesticides, weeds and insects. Hence, in most of agro-ecosystems, declining crop yield is exponentially related to loss of soil quality through climate related problems such as drought and floods. Also, HIV and AIDS has currently been found to be a perpetuating factor that is unique, slow-moving and devastating shock that strips households food production and livelihood assets as a creeping emergency that progressively erode the lives and livelihoods of the affected household (Speth, 1993; Rosegrant & Cline, 2003; Stocking, 2003; Gregory, Ingram & Brklacich, 2005). Other important constrain associated with food production is high cost of crop damage due to poor or non-existing storage facilities, with Spoilt fruits and food crops being common feature, and increased water scarcity.

Impact of HIV and AIDS on Food Production in Rural Areas

The HIV and AIDS epidemic is another global concern, in addition to its direct health, economic and social impacts, the disease also affect food production, security and nutrition. Adult labour is often removed from affected households and these households are left with less capacity to produce or buy food (Hendriks, 2005). Concurrently, HIV and AIDS had add to disinvestment by families in farming activities and a move towards livelihoods strategies more adaptable to unstable and insecure circumstances which are previously associated with political and economic instability and conflict, together with poor financial resource and poverty. In other words, HIV and AIDS is a shock to households' food security and the latter cannot be properly understood without considering its effect. While the immediate, devastating effects are at the individual level, the consequences are much broader, for instance, from the intolerance strains on traditions and the child fostering mechanism, to extreme pressure on health systems and also loss of productive labour (Mtika, 2001; Hendriks, 2005). Moreover, Mtika (2001) also argues that the disease contributes to psychological strain including depressed families, stress, suicide, isolation, self-pity, stigma and hatred had affected household's abilities to sufficiently producing their own food.

The Impact of Climate Change on Food Production in Rural Areas

Climate change is one of the most important stressor which affect food systems of many rural areas in several ways which range from direct effects on crop production (for instance, changes in rainfall leading to drought or flooding, or warmer or cooler temperature leading to changes in the length of growing season) to changes in markets, food prices and supply chain infrastructure (Rosegrant & Cline, 2003; Barnet & Adger, 2007; Brahmhatt & Christiaensen, 2008). In warmer or tropical environment, climate change have resulted in more intense rainfall events between prolonged dry period, as well as reduced or more variable water resources for irrigation. Such conditions have promoted pests and diseases on crops and livestock, as well as soil erosion and desertification. Particularly in rural Southern Africa, the short and long-term climate and environmental stressors are found to be endemic to the food production livelihoods and practices (Speth, 1993). Hence, many rural households' food systems had failed to deliver food security because the related determinants and/or the links between them are disrupted by climate change and other climate related stressors. Two categories of occurrence (natural and human processes) namely flood and droughts are virtually universally accepted to be the primary indicators of climate change. Barnet & Adger (2007) state that, flood and drought had continuously destabilized the poor household's food production, clean water, energy supply and environmental health, amongst others.

The manifestation of climate change through floods is perceived to be the most dangerous event signalling its existence (Khandhela & May, 2006). Climate change increases the surface temperature, changes precipitation patterns, which constitute into severe heavy rains. The sea levels rises when the water warms, glaciers and ice melt into the sea. Hahn, Riederer & Foster (2009) wrote that the long term changes in the hydrological cycle (that is the flow of water throughout earth due to higher temperature; more evaporation; melting of ice; more intense rainfall) contribute to the manifestation of climate change in the form of floods. Floods which constitute heavy rains do not only frustrate household food production processes but also contribute to destruction of infrastructure, closure of schools, damage to traditional dwellings and sometimes loss of lives (Khandhela & May, 2006; Hahn et al., 2009).

The other indicator of climate change which is largely observable and/or measurable in rural areas is drought. Drought occurs when there are changes in the hydrological cycle which ultimately change the precipitation process (Devereux, 2007; Simelton, Fraser, Termansen, Forster & Dougill, 2009). Devereux (2007) illustrated that drought manifest when there is a build-up of water vapour the atmosphere and change occurs in the climate patterns. Drought can take shorter or a longer period; however the persistent moisture deficiency below long-term average condition; balanced precipitation and evapotranspiration will increase the period of drought in a specific area (Fraser, 2006). Fraser (2006) mentioned that drought is more than a simple lack of rainfall in a hydrological sense it occurs when surface water supplies steadily diminish during dry spell and in an agricultural sense it occurs when the moisture shortage lasts long enough and hits hard to negatively impact cultivated crops and livestock. According to Devereux (2007) moisture deficits may have different consequences depending on the time of year at which they occur, pre-existing soil moisture content, and other climatic factors such as temperature, wind, and relative humidity can also pre-empt the manifestation of drought particularly in rural areas. The challenges associated with food production require strategic interventions which will cater for sustainable food security for the poor in rural areas.

MOVING TOWARDS SUSTAINABLE FOOD PRODUCTION AND SECURITY

The goal of achieving sustainable food production and security in the decades ahead emerges as one of the greatest challenges humanity has ever faced. Agriculture outputs should be increased and people should have the income to buy them. That is, food security which commonly includes food supply, access, adequate utilization, and safety and in some cases cultural accessibility of food for all people at all times has to be a priority in the global food agenda (Speth, 1993; Duhaime & Godmaire, 2002; Rosegrant & Cline, 2003; Hendriks, 2005; Pretty et al., 2008; Gregory et al., 2005). In other words, food security is seen to exist when all people, at all times, have physical and economic access to sufficient, safe, nutritious food to meet their dietary needs and preference for an active and healthy life. According to Hendriks (2005) in order to achieve sustainable food production and security, there is a need to a radical policy and investment reforms on multiple fronts, including human resources, agricultural research, rural infrastructure, water resources, community based agricultural and natural resources management (Rosegrant & Cline, 2003). These policy reforms which should be progressive in nature must not only increase agricultural production in a larger scale but also facilitate household own production, boost income and reduce poverty in rural areas where most of the poor live. Hence, in countries with heavy dependence on agriculture, progress towards improved reforms will not only depend on making agriculture more productive in a national scale but also it will require an intervention at the local small-hold farm practice and significantly at the household level. One aspect which is making sustainable food production a requirement to the alleviation of hunger in third world countries is the global increase in food prices (Rosegrant & Cline, 2003). These increases which are coupled by the increased poverty rate are threatening household food security by reducing the purchasing power and available resources for purchasing food and eroding income. Furthermore, Duhaime & Godmaire (2002) stated that, continuing rising of food prices and heavy reliance on food purchases increase vulnerability to food insecurity as greater reliance on wage income discourages home production of food. Sustainable food production will mean that, the combination of three elements of food securities are merged, for instance, human resource (people) should be available, production should flourish and access should be maintained and facilitated (Hendriks, 2005). Food access indicators include food entitlement and socio-economic indicators that indicate ability of household to cope with various stresses induced by economic and social change. Most food security outcome indicators measure more than food consumption for example, malnutrition indicators also capture the influence environment aspects, bio-utilisation factors, health and sanitation on nutrition, growth and development.

The sustainable production of food is the first pillar of food security; hence food security is a basic human right. Failing to attain these human right may not necessary capture all dimensions of poverty, but it may indicate it as an important indicator of wellbeing (Hendriks, 2005). Sustainable food security will mean improved systems of food production, distribution and economic access to cope with climate change. Moreover, subsistence food production is strongly influenced by the availability of water. The majority of poor households are situated in places with limited water and they are likely to have limited food production because they are not able to irrigate their crops during dry seasons. Again, Gregory et al. (2005) stated that achieving sustainable food security will require more than improving productivity and profitability while minimising environmental impact, it also focus on goals of households food security and sustainable agriculture. This process requires that we look not only at the aggregate supply of food but also at income and land distribution at household livelihoods and dietary needs. Concurrently, the requirement for sustainable food production will have to increase substantially over the next few decades to feed increasing global population

CONCLUSION

Sustainable food production alone will not be sufficient to meet many people's food security requirements. However, food security still depends on the ability of people to produce their own food particularly in rural areas. Crop production and livestock farming still form a crucial base for households' dietary needs in rural area. However, the socio-economic and environmental conditions in these areas are seen as a stumbling block for the success of food production and ultimately food security. Again the challenges and constrains associated with climate change and HIV and AIDS are continuing to threaten the process of food production. The adoption of strategies and mechanism to facilitate sustainable food production among households in rural areas is paramount to realisation of food security.

REFERENCES

- Ayinde, O. E., Ajewole, O.O., Ogunlade, I. & Adewumi, M.O. (2010). Empirical analysis of agricultural production and climate change: a case study of Nigeria. *Journal of Sustainable Development in Africa*, 12(12), 275-283.
- Barnett, J. & Adger, W.N. (2007). Climate change, human security and violent conflict. *Political Geography*. 26, 639-655.
- Blaikie, P. (1985). *The Political Economy of Soil Erosion in Developing Countries*. Longmans, Harlow.
- Brahmbhatt, M. & Christiaensen, L. (2008). *Rising Food Prices in East Asia: Challenges and Policy Option*. World Bank, Washington D.C.
- Calzadilla, A., Zhu, T., Rehdans, K., Tol, R.S.J. & Ringler, C. (2009). *Economy Wide Impact of Climate Change on Agriculture in Sub-Saharan Africa*. University of Hamburg, Washington D.C.
- Devereux, S. (2007). *The Impact of Drought and Floods on Food Security and Policy Options to Alleviate Negative Effects*. University of Sussex, Brighton.
- Duhaime, G. & Godmaire, A. (2002). The conditions of sustainable food security: an integrated conceptual framework. *Journal of Aboriginal and Indigenous Community Health*, 1(2), 88-127.
- Fraser, E.D.G. (2006). Food system vulnerability: using past famines to help understand how food may adapt to climate change. *Ecological Complexity*, 3,328-335.
- Gregory, P.J., Ingram, J.S.I. & Brklacich, M. (2005). Climate change and food security. *Philosophical Transactions: Biological Sciences*, 360(1463), 2139-2148.
- Hahn, M.B., Riederer, A.M., & Foster, S.O. (2009). The livelihood vulnerability index: a Pragmatic approach to assessing risks from climate variability and change-a case study in Mozambique. *Global Environmental Change*. 19,74-88.

- Hendriks, S.L. (2005). The challenges facing empirical estimation of household food (in) security in South Africa. *Development Southern Africa*, 22(1),104-123.
- Hinrichsen, D. (2000). *Population and the Environment Change: The Global Challenge*. Population Information Program, Baltimore.
- Khan, R. N. & Usmani, R. H. (2005). Characteristics of rural subsistence small holder livestock production system in mountainous areas of NWFP, *Pakistan Veterinary Journal*, 25(3), 115-120.
- Khandhela, M., & May, J. (2006). Poverty, vulnerability and the impact of flooding in the Limpopo Province, South Africa. *Net Hazards*. 39, 275-287.
- Misselhorn, A.A. (2005). What drives food insecurity in southern Africa? A meta-analysis of household economy studies. *Global Environmental Change*, 15:33-43.
- Mtika, M.M. (2001). The AIDS epidemic in Malawi and its threat to households food security. *Human Organization*. 60(2), 178-188.
- Olawepo, R.A. (2010). Constraints to increased food productivity in rural areas: an example from Afon District, Ilorin, Nigeria. *Asian Social Science*, 6(4), 106-116.
- Olesen, J.E. & Bindi, M. (2002). Consequences of climate change for European agricultural productivity, land use policy. *European Journal of Agronomy*, 16:239-262.
- Pretty, J.N. Thompson, J. & Hinchcliffe, F. (2008). *Sustainable Agriculture: Impact on Food Production and Challenges for Food Security*. International Institute for Environment and Development, London.
- Rosegrant, M.W. & Cline, S.A. (2003). Global food security: challenges and policies. *Science Mag*, 302, 1917-1919.
- Rozelle, S., Huang, J. & Zhang, L. (1997). Poverty, population and environmental degradation in China. *Food Policy*, 22(3), 229-251.
- Simelton, E., Fraser, E.D.G., Termansen, M., Forster, P.M. & Dougill, A.J. (2009). Typologies of crop-drought vulnerability: an empirical analysis of the socio-economic factor that influence the sensitivity and resilience to drought of three major food crops in China (1961-2001). *Environmental Science & Policy*, 12, 438-452.
- Speth, J.G. (1993). *Towards Sustainable Food Security*. Consultative Group on International Agricultural Research, Washington D.C.
- Stocking, M.A. (2003). Tropical soils and food security: the next 50 years. *State of Planet*, 302, 1356-1359.
- Thornton, P.K., Jones, P.G., Ericksen, P.J. & Challinor, A.J. (2011). Agriculture and food systems in sub-Saharan Africa in 4⁰C+ world. *Mathematical Physical & Engineering Science*. 369, 117-136.

WHEN WORD AND WORLD COLLIDE: CONFLICTS IN CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT

This paper analyzes the cases of a well-known global corporation (Toyota), a highly-ranked institution of higher education (Emory University) and a celebrity athlete (Lance Armstrong), all of which have systematically promoted an outward appearance of “clean hands” wrapped in socially responsible jargon but have, nevertheless, been criticized for engaging in questionable and/or unethical practices. More specifically, the authors examine the disconnection between what these business entities say they stand for and what they actually do and its implications for teaching business ethics and principles of corporate social responsibility in business school.

INTRODUCTION

When all is said and done, the marketplace hinges on essentially one time-tested, basic principle: trust-based exchange. One person wants: the other has. They agree to an exchange and some sort of payment or consideration. The latter is made, the former is provided. Each contributes to the equation what each must in order for the transaction to take place. Each is presumed to have control of the property, service or consideration that is to be provided. The process presumes the trustworthiness and good faith of those involved.

This paradigm seems rather absolute or simple. Ideally, it should be. The problem in our society is that the art of the deal now involves much more and even more people and what are perceived as “greater stakes.” So many people are involved in the process that controlling the product or outcome is incredibly difficult. So many compete for relatively so few that caution and integrity seem at times to be thrown to the wind. The end users may meet and exchange in good faith and with integrity but what happens when their suppliers or subcontracted manufacturers have not acted comparably? What happens when consumers or end-users have no idea that they have been deceived somewhere along the line and that their transactions are essentially worthless because what was promised or believed to have been promised, did not exist?

THREE RECENT CASES IN BUSINESS ETHICS

In the case of Toyota, the world’s best selling car just a few short years ago, many models of vehicles were placed into the marketplace in 2009 with mechanical defects in the steering, gas pedal and braking systems. Salespeople did not know this nor did the consumer. Although many service managers deny that they saw owner complaints about such problems, the problems did in fact exist. Then the accidents began: many of them nasty and even fatal. In most cases the drivers were held responsible and insurance companies paid millions of dollars in compensatory damages until investigators started to ask questions, connected the dots, undertook an inquiry and not only discovered the defects but worse, discovered that Toyota engineers, middle and executive management knew of the problems and deliberately withheld the information not only from the consumer public but from their own sales forces out of fear of consumer response and a negative impact on sales/income. After all, there was history. The Audi 5000 and its sudden acceleration nearly killed the marque. A similar situation had occurred with Japanese car manufacturer Mitsubishi. People were literally killed by defective automobiles. Its executives, who it turns out knew and withheld information, were held criminally liable by Japanese courts. Toyota believed itself to be superior to Mitsubishi in all ways and seemed to also believe themselves beyond the pale of legal or ethical scrutiny especially in their quest to

unseat GM as the world's leading automobile manufacturer. Yet, in 2005, Toyota recalled more than 9 million cars worldwide: more than they sold in 2007 (Ingrassia 2010).

Paul Ingrassia, a Pulitzer prize winning reporter and former bureau chief for *The Wall Street Journal* said, "The evidence that Toyota was expanding too much and too quickly started surfacing a couple of years ago. Not on the company's bottom line, but on its car-quality ratings. Even *Consumer Reports*, long a supporter of Toyota products, stopped automatically endorsing their vehicles" (ibid.).

When the smoke cleared in 2010, fingers were pointing all over the place from management clear through to supply chain manufacturers. The common denominator was that the quality control system was broken and there had been a profound failure of personal and corporate ethics. Subsequently, a number of wrongful death verdicts were appealed and overturned. Additionally, many indemnification suits were brought by insurers against Toyota. Executives resigned and Toyota created an ethics oversight board as a standing committee of their corporate board of directors while articulating a commitment to corporate ethics, responsibility to their shareholders and the consumer, and accountability to all for past, present and future actions. This was heavily marketed along with huge international sales promotion efforts. It took a little more than a year but Toyota appeared to have rebounded. Why? Consumers believe that a proper plan was in place, that accountability had been achieved and that a better product was available for sale. Having said that, the affected model years are regularly left in place on used car lots and sell, if at all, for less than they would have been expected to (Tice, 2010; Wallace, 2010).

Ethics lapses were not left to Toyota or to the corporate world. In the apparently pristine groves of academe where much ado is made of academic integrity, the ivy was stripped and institutions as diverse as Emory University, Baylor University and Claremont McKenna College, to name but a few, each found themselves on the wrong ends of reporting audits. These audits unearthed evidence that each of the schools had systematically and improperly tampered with and reported constructed student data to reporting agencies that effect college ranking placements. The improperly reported data covered everything from SAT scores and AP scores of incoming classes, student retention and academic performance figures, graduation rates, and post graduation employment rates. Following this disclosure, in each case, school ratings were downwardly adjusted in the national ratings, the executives responsible for the misreporting were terminated, and the schools were subsequently subject to intense scrutiny by regional and academic specialty accrediting bodies. In each case, applications dropped as did ultimate freshmen admission numbers (Diamond and Schneider, 2012.; Perrotta, 2012). Although the schools mentioned were disparate in size, student demographics and geographic location, the common denominator is that each was driven to access from a fixed cohort of available college age students, to capture the largest, most talented and diverse incoming classes possible. When students look at national and regional rankings as part of the decision matrix there is intense pressure to maximize an institution's appeal even if such appeal has been "buffed." Most consumers expect some buffing but these institutions went way beyond what one might have anticipated as "fluff."

In the final example we turn to sports and particularly the sport of endurance and distance bicycle racing. The Tour de France is the pinnacle of bicycle racing and synonymous with it is the name Lance Armstrong, the winner of this event for many years. Armstrong was a poster boy for success, hard work, effort and determination. A cancer survivor, he fine-tuned his body into a performance machine and won race after race over a course of years ultimately creating his own team with high profile corporate sponsorships ranging from the Discovery Channel to the US Postal Service. High profile wins turned into advertising and endorsement opportunities that generated huge paydays for Armstrong. He created the Livestrong foundation that became, with sponsors such as Nike, ubiquitous. In spite of occasional allegations that he had illegally "doped" to win races, Armstrong consistently denied and, for years, even prevailed over his naysayers. Still, the allegations followed him until such time that the doubters were proven right when his blood and urine tests returned positive findings. Armstrong ultimately capitulated to personal and sports industry pressure to admit that he had cheated. His admission, in a television interview conducted by Oprah Winfrey, caused him to be stripped of his titles, all of them, his medals, records and then, of his endorsements (Bond, 2013). His foundation from which he had distanced himself before the admission but after the spate of allegations, is struggling to survive so identified with it is he and his brand.

No one likes a cheater. No one accepts that cheating is just the way it is in a particular sport. Tolerance for those who deliberately cheat is now explicit and non-existent. No one cares or wants to know why someone cheated or justified their cheating. Too many talented, real athletes are out there to be ignored. Too many athletes can break records without cheating. As to name rebuildingit also appears that most people really don't care whether Armstrong and others like him try to compete in other sports such as

triathlons or marathons to “prove” somehow that they really are made of the athletic stuff of their respective legends. They are forever tainted. Any success, if noticed, is questioned.

In the situations and examples discussed in this paper, we have seen how the fundamental premise of business – trust based exchange – came to be not only ignored and apparently discarded but also flaunted! It would appear that as long as corporations were meeting earnings expectations and shareholders were receiving dividend checks; as long as students were accepted to and processed through elite universities and colleges; as long as athletes won for themselves, their teams, their sponsors and their advertisers, no one, other than losers, seemed to complain or to even raise an objection. We can point to any number of reasons that may have triggered what seems to be a sudden countervailing force and, of course, one clean and clear-cut reason simply does not exist. What we would conjecture has happened here is a backlash to the fall of Enron and to Madoff’s Ponzi schemes that showed the degree to which someone would manipulate anyone and anything for personal gain regardless of collateral damage, to the serial uncoverings of financial and social abuse by individuals and entities believed to be intact, secure, honorable and trustworthy. It’s always easier once the first “giant” has been toppled and is found, on closer inspection, to be no different than the rest of us, to summon the courage to take out the rest of his kind.

IMPACT ON TEACHING BUSINESS ETHICS

Having said all this, how then does one teach ethics/business ethics to contemporary undergraduate and graduate students many of whom have been in university for the past few years in the wake of the aforementioned economic, business and sport debacles? Even in faith-based institutions, unofficial polling of the student body by the first author over the course of the past decade has yielded information that confirms the suspicions of many who teach in such institutions. Simply, the common denominator of secondary education preparation that we assumed and usually derived from traditional “feeder” schools has literally disappeared. At our home university, Iona College, our traditional draw of undergraduate students derived from Catholic or faith based secondary schools. These numbers exceeded 80% of the student body. In the past ten years this number has literally turned upside down. 85% of the business student body no longer derives from a faith-based institution.

What is the upshot of this? It is that there is no common philosophical or moral base that has been taught to these students upon which they can draw to make moral or ethical decisions. Similarly, not only do these students no longer hail from faith-based secondary schools, they also come from families where some sort of religious practice is practiced regularly or at all. Simply put: any faith based education they were the recipients of ended by the time they were about 14!

Since most have not taken courses in philosophy, religion or even ethics in high school, any moral dilemmas they are exposed to come from either English literature or perhaps environmental or nutritional science programs. No one teaches them the foundations of ethics or of ethical decisionmaking. In effect, they come to college in this segment of their overscheduled lives as blank slates. In this particularly important subject matter they “think” they can handle it when the situation presents itself. It soon becomes apparent that they cannot. Nonscientific evidence of this is the use of an Ethics Survey (www.ethicsurvey.com) with students in our institution. The questions posed on the survey are used to trigger discussions, comments, questions and answers. Simply put, their answers are all over the place.

However, it also becomes apparent that students are wired to understand the ethical issues at stake when presented with a media story in which someone acts in a way that defies an expected outcome, whether an athlete acknowledges an illegal move in a golf game that no one else saw and ends up taking a penalty, or a police officer buying a homeless man a pair of shoes on a cold night, or a combat unit releasing civilians knowing fully well that they could be betrayed but this very act of kindness (they were), or someone doing something heroic to rescue someone else with little or no regard for their own safety.

General conversations about cheating in school for example are enlightening and disturbing. These conversations also replicate whether in elite or lesser caliber college environments. This generation has grown up with the internet. They have grown up in smaller families where parents have the time to invest more interest and control in the child’s outcome. The parents also expect “A’s” regardless of how the grade is attained. The students, in turn, can get whatever they want, whenever they want it on the internet. Point, highlight, click and paste and it’s done. Music, art, articles, papers, legal templates, medical diagnostics, you name it, it’s there. “An A, professor, Thank you.”

What is “their” work product and what constitutes someone else’s is a blur. More often than not, the source of the work product seems to not matter. It appears to be fine unless or until one is caught and even then, the attitude is: “what’s the big deal?” Lest the older folk in the room blame everything on the internet, our teachers and professors blamed encyclopedias, whether World Book or Britannica, in the same way. Only the vehicle for the delivery of information has changed.

Other than an occasional high profile individual losing a job (high level German government officials for example who had fake PhDs) or a sports title, cheaters generally seem to get away with it. There are no apparent penalties let alone social stigmata to stop the practice. Just think, for example, of the number of people out there who use fake academic credentials or who use templates and boilerplates. This practice is so common in business or law for example that few consider the fact that the use of such tools is anything but the “customized and customer focused product our company promises to each and every client.” Personal service amounts to filling in the proper blanks on a proprietary form and getting the file onto the conveyor belt.

Many have listened to their own parents brag about how they bent the rules on their income tax statements, or how they use Miracle Grow on their tomatoes or petunias, or how they pop a little blue pill to enhance their intimate performance, or another pill to lift their mood, or how they did 75 on a 50-mile limit road, etc. The media proclaims the joys of more than one partner and seems to denigrate those who live lives of fidelity unless the fidelity lasts 50 or more years and then the couple is held up as a paragon to be emulated. One can’t have it both ways. The media never seem to “get” that point. Hence the confusion that abounds around us.

Unfortunately incidents and practices such as those described earlier in this paper underscore the concept that one does whatever one wants since, in most cases, one can get away with it OR because, since so many other people are “doing it,” no one will “call them out on it.” In addition, we are all painfully aware—regardless of where we come from—that traditional sources of moral authority (religion, politics, intelligentsia) have failed abysmally and deprive us of somewhere to have our compasses point “north.” We are painfully aware that there is no one book with all the answers to which we can turn. Perhaps there never was but we were unaware of that until recently. And what is a proper answer for a professor to say to an international student who, without blinking, states factually “Where I come from, everyone cheats. Cheating is the norm. Everyone knows about it.”

So, how does a business school specifically deal with the issue of integrity and ethics? How does a business professor who struggles with these issues in his/her own life deal with these issues?

These are tough questions however the fact that the professor at least recognizes the conflict provides hope that such can be shared and used as a teaching moment. In addition, there are a few ways to teach such subject matter that range from mandating a specific course in business ethics (probably not THE best way to go) to integrating issues of business ethics throughout the business school curriculum regardless of the topic (probably the best way). In the latter situation, students can face the challenges posed by ethical decisionmaking in various facets of business that account for cross cultural differences in what constitutes proper ethical conduct whether in the disciplines of accounting, marketing, information systems or management. The use of an ethics survey in the class may be of use. Such has certainly been the case in some of our classes. Students can see how their professors, professionals in the field, have dealt with the issues and can learn what the outcomes were. They can read and analyze case studies where people simply were not on the same page and what the outcomes were. The daily news not infrequently is a treasure trove of people on the wrong end of bad ethics, e.g. factory fires in Bangladesh, factory explosions in Texas and Georgia, building and bridge collapses in the US, government economic collapses in Italy, Ireland, etc., the ill-advised or fraudulent use of military force, and so on.

The ethical problem solving becomes real and works particularly well if there is a way to add a consequence to the decision that is made. Specifically, in a case study or in a simulation, someone will win and someone will lose. Specifically, someone will get hurt by another’s actions whether financially or professionally. If a soldier is sent to battle on a fraudulent reason and is killed or maimed for life, he or she pays the price of the lie. Not everyone gets a trophy. In medical and nursing clinical education simulations, for example, someone dies or is permanently disabled as a result of the decision that has been made. The one who makes the decision has to “live with it.”

We propose, finally, that in teaching ethics to business students, that same sort of pass/fail: live/die simulation must take place in the business environment. We need to eliminate the ABCDF mentality and

construct a Pass/Fail and nothing in between reality. Students need to see that there are consequences to their decisions that are real and not something “vague” of the sort not imagined via the internet or in a video game where, when all lie dead or dying, the player simply has to hit the “reset” button to begin anew or someone kind says “it’s OK” because it’s not.

REFERENCES

Bond, David (2013). Lance Armstrong: Are Lawsuits Enough of a Punishment? *BBC Online*. www.bbc.co.uk/sport/0/cycling/22282255, retrieved 5/10/13

Diamond, L. and C. Schneider (2012). Emory Scandal: Critics Doubt College Ratings. *The Atlanta Journal-Constitution*. ajc.com, accessed 5/15/13

Ingrassia, P. (2010). Toyota: Too Big, Too Fast. *Wall Street Journal*. www.wsj.com, accessed 5/15/13

Tice, C. (2010). Toyota Recall Aftermath: The Japanese Automaker Big Disconnect. *CBS News: Moneywatch*. www.cbsnews.com, accessed 5/15/13

Wallace, E. (2010). The Real Scandal Behind the Toyota Recall. *Bloomberg Businessweek*. www.businessweek.com/lifestyle/content, accessed 5/15/13

Perrotta, K. (2012). Emory University Scandal: It’s Not Just APS. *Examiner*. www.examiner.com, accessed 5/15/13

GENERATION Y STUDENTS' ATTITUDES TOWARDS FACEBOOK ADVERTISING: PILOT STUDY RESULTS

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ABSTRACT

The purpose of this paper is to report on the results of a pilot study conducted on the determinants and inhibitors of Generation Y students' attitudes towards Facebook advertising. The findings suggest that Generation Y students have a positive attitude towards the information value, entertainment value, credibility, self-brand congruity of advertising on Facebook and attitude towards the social interaction value of Facebook. Their attitudes towards trust in the site and trust in the members while positive, was not significant. Results suggests that Generation Y students have negative attitude towards the invasiveness of advertisements placed on Facebook and a negative, but not significant, attitude to the time cost involved in participating on Facebook.

INTRODUCTION

Facebook is one of the fastest growing social networking sites. In January 2013, it was estimated that South Africa had more than 6.1 million Facebook users. Of the 6.1 million users, 2.8 million are over the age of 18. The majority of these users (31%), regarded as heavy users of Facebook (Nicholas, Rowlands, Clark & Williams, 2010), is between 18 and 24 years of age and is referred to as Generation Y. Generation Y is defined as those individual born between 1986 and 2005 (Markert, 2004). This cohort is reported to spend more time on Facebook (Jones, Ramanau, Cross, & Healing, 2010). On Facebook, Generation Y share information and communicate with each other. According to Kilian, Hennigs, & Langner (2012), the quest for information and entertainment drives usage of social media such as Facebook among this cohort. In recent years, the purpose of Facebook has shifted from casual networking with friends to commercial use.

Facebook is increasingly becoming the most popular advertising platform for businesses. Evidence suggests that in 2013, Facebook advertising accounted for 43% of online advertising revenues (Milani, 2013). Of the advertising growth, 30% came from mobile advertising. This phenomenal growth in Facebook advertising has necessitated the authors of the current study to examine the reasons behind the success of this platform by examining Generation's Y attitudes towards Facebook advertising. A review of literature indicates that certain factors impact on the success of advertising. On the online environments like Facebook, factors determining success of advertising include but not limited to information value, entertainment value, credibility, self-brand congruity, trust, and peer influence (McKenzie & Lutz, 1989; Ducoffe, 1995; Taylor, Lewin & Strutton, 2011; Liu, Sinkovics, Pezderka & Haghirian, 2012). However, studies indicate that certain factors such as invasiveness and time cost may impede advertising success in such environments.

The quest for information about the company's products or brands in many instances contributes to whether advertisement does provide consumers with the necessary information they are searching for. Ducoffe (1996) highlights that it is important for advertising to have the ability to inform consumers of

product and brand alternatives so that they make purchases that yield the greatest possible satisfaction. Pollay and Mittal (1993) suggests that consumers' opinion of the informational value of advertising often determines how well they believe the advertising will keep them up to date with products offered.

More often than not, consumers attempt to evaluate a brand by matching the brand image with their self-concept and thereby form an initial favourable attitude toward the brand (Kressmann, Sirgy, Herrmann, Huber, Huber & Lee, 2006). Taylor *et al.* (2011) refers to this effect as self-brand congruity and they found a positive relationship between self-brand congruity and attitude toward advertising.

Studies on technologies like Facebook demonstrate that consumers use such technologies to seek pleasure and to have fun (Wang & Sun, 2010). It is incumbent on marketers utilising these technologies to design advertisements that are entertaining (Petrovici & Paliwoda, 2007; Pollay & Mittal, 1993; Coulter, Zaltman & Coulter, 2001), fun (Wang & Sun, 2010) and providing enjoyment (Coulter, Zaltman & Coulter, 2001). According to McQuail (1983) such advertisements fulfill audience's needs of escapism, diversion, aesthetic enjoyment, or emotional release. Ducoffe (1996) relates the above activities to the entertainment value of advertising.

The development and increasing use of online technologies have raised doubts about credibility of advertisements in such platforms. Usually, consumers do not trust these advertisements. According to MacKenzie and Lutz (1989) advertising is credible when the consumers perceive it as truthful, reliable, trustworthy, and believable. Credible advertisement contributes to the formation of consumers' positive attitudes towards advertising (Lafferty & Goldsmith, 1999).

Engaging with friends is probably the main reason why individuals spend more time on Facebook. Typically, consumers will expect their friends to participate and engage in these technological platforms. During their engagements, for example, they would recommend advertisements they viewed from these sites to their peers (Taylor *et al.*, 2011). Although the motives for using Facebook are often about seeking entertainment, at times consumers use Facebook to alleviate boredom (Taylor *et al.*, 2011). The amount of time spend on the online environment (Ko, Cho & Roberts, 2005) might influence consumer attitudes towards advertising in such an environment (Taylor *et al.*, 2011).

Although there is no doubt that Facebook advertising is growing faster than envisioned and the fact that there are many positive outcomes for using such a platform, there are several inhibitors of advertising in such technological environments. Researchers noted that consumers often complain that advertisements in these media tend to be irritating (Aaker, & Bruzzone, 1985), distracting (Speck, & Elliott, 1997) and intruding (Li, Edwards & Lee, 2002) on their space.

The successful implementation of Facebook as an advertising tool in a developing country like South Africa can only be effective if those using it can have favorable attitudes towards advertisements depicted in that platform. The purpose of this paper is to report on the results of a pilot study conducted on the determinants and inhibitors of Generation Y students' attitudes towards Facebook advertising.

RESEARCH METHODOLOGY

A convenience sample of 50 students was obtained from a South African public higher education institution located in the province of Gauteng in South Africa. Data analysis was done using descriptive statistics and Z-test. A structured self-administered questionnaire was utilised to gather data on the determinants and inhibitors of attitudes towards Facebook advertising. The proposed determinants include information value, entertainment value, credibility, self-brand congruity, trust in site, and trust in members of the site and social interaction. The proposed inhibitors include invasiveness and time cost. The scale items for these dimensions were adapted from scales developed by Taylor, Lewin & Strutton (2011), Ducoffe (1996), Li, Edwards & Lee (2002), Sirgy, Grewal, Mangleburg, Parks, Chon, Clairborne, Johar & Berkman, (1997), and Roman & Cuestas (2008).

RESULTS OF THE STUDY

In order to determine the reliability of the scales in the instrument, the Cronbach alpha and the average inter-item correlation coefficients were calculated for each of the proposed seven determinants and two inhibitors. Typically, a Cronbach alpha of 0.6 is acceptable and one of 0.7 and above preferred. The rule of thumb with

the average inter-item correlation coefficient is a value within the range of 0.15 and 0.50 (Pallant, 2010). Table 1 presents the results of the reliability analysis.

Table 1: Reliability

Construct	Number of items	Cronbach alpha	Average inter-item correlation
Determinants			
Information value	7	0.732	0.281
Entertainment value	5	0.712	0.336
Credibility	3	0.604	0.317
Self-brand congruity	4	0.791	0.482
Trust in site	6	0.917	0.647
Trust in members	6	0.867	0.523
Social interaction	4	0.816	0.541
Inhibitors			
Invasiveness of advertisement	5	0.728	0.362
Time cost	5	0.780	0.432

The Cronbach alphas for both the determinants and the inhibitors were all computed above 0.6, with the majority being above 0.7. This indicates that each of the scales exhibit reliability. An average inter-item correlation coefficient within the recommended range was computed on most of the instrument's scales. This suggests both convergent and divergent validity. While the average inter-item correlation for the trust in site, trust in members and social interaction constructs were slightly above the recommended level, this merely suggests a stronger relationship between the items in those scales.

Table 2: Descriptive statistics

Construct	Means	Standard deviations	Z-scores	P-values
Determinants				
Information value	4.034	0.836	7.624	0.000*
Entertainment value	4.178	0.926	7.838	0.000*
Credibility	3.465	1.103	2.598	0.013*
Self-brand congruity	3.618	1.184	3.221	0.003*
Trust in site	3.333	1.397	1.471	0.150*
Trust in members	3.246	1.259	1.203	0.237*
Social interaction	4.665	0.925	11.092	0.000*
Inhibitors				
Invasiveness of advertisement	3.668	0.883	-4.669	0.000*
Time cost	3.121	1.226	-0.609	0.547*

*Significant at the 0.05 level

P-values of $p < 0.05$ were computed on the five of the seven proposed determinants of attitude towards advertisements in the Facebook environment. This indicates that Generation Y students have a statistically significant positive attitude towards the information value, entertainment value, credibility, self-brand congruity of advertising on Facebook, as well as a statistically significant positive attitude towards the social interaction value of Facebook. Their attitudes towards trust in the site ($p = 0.150 > 0.05$) and trust in the members ($p = 0.237 > 0.05$) while positive, were not significant. Concerning the inhibitors, the evidence in the pilot sample suggests that Generation Y students have a statistically significant negative attitude towards the invasiveness of advertisements placed on Facebook ($p = 0.000 < 0.05$) and a negative, but not statistically significant, attitude to the time cost involved in participating on Facebook ($p = 0.547 > 0.05$).

CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

The purpose of this paper was to report on the results of a pilot study conducted on the determinants and inhibitors of Generation Y students' attitudes towards Facebook advertising. It was evident from the findings that Generation Y is embracing Facebook as an advertising platform. These findings provide insights to marketers especially those who are interested in targeting Generation Y cohort. In addition, the findings in this study indicate that Generation Y is receptive of Facebook advertising. However, the findings of the current study have limitations. Due to the small sample size, caution must be made when interpreting these findings. Therefore, the findings cannot be generalised. Future research should consider a larger sample size to permit the use of robust statistical analysis such as factor analysis, regression analysis, and structural equation modelling techniques.

REFERENCES

- Aaker, D. A., & Bruzzone, D. E. (1985). Causes of irritation in advertising. *The Journal of Marketing*, 47-57.
- Coulter, R. A., Zaltman, G., & Coulter, K. S. (2001). Interpreting consumer perceptions of advertising: An application of the Zaltman Metaphor Elicitation Technique. *Journal of Advertising*, 1-21.
- Ducoffe, R. H. (1995). How consumers assess the value of advertising. *Journal of Current Issues & Research in Advertising*, 17(1), 1-18.
- Ducoffe, R. H. (1996). Advertising value and advertising on the web. *Journal of Advertising research*, 36, 21-36.
- Jones, C., Ramanau, R., Cross, S., & Healing, G. (2010). Net generation or Digital Natives: Is there a distinct new generation entering university?. *Computers & Education*, 54(3), 722-732.
- Kilian, T., Hennigs, N., & Langner, S. (2012). Do Millennials read books or blogs? Introducing a media usage typology of the internet generation. *Journal of Consumer Marketing*, 29(2), 114-124.
- Ko, H., Cho, C. H., & Roberts, M. S. (2005). Internet uses and gratifications: a structural equation model of interactive advertising. *Journal of advertising*, 34(2), 57-70.
- Kressmann, F., Sirgy, M. J., Herrmann, A., Huber, F., Huber, S., & Lee, D. J. (2006). Direct and indirect effects of self-image congruence on brand loyalty. *Journal of Business Research*, 59(9), 955-964.
- Lafferty, B. A., & Goldsmith, R. E. (1999). Corporate credibility's role in consumers' attitudes and purchase intentions when a high versus a low credibility endorser is used in the ad. *Journal of business research*, 44(2), 109-116.
- Li, H., Edwards, S. M., & Lee, J. H. (2002). Measuring the intrusiveness of advertisements: scale development and validation. *Journal of advertising*, 37-47.
- Liu, C. L. E., Sinkovics, R. R., Pezderka, N., & Haghirian, P. (2012). Determinants of Consumer Perceptions toward Mobile Advertising—A Comparison between Japan and Austria. *Journal of Interactive Marketing*, 26(1), 21-32.
- Markert, J. (2004). Demographics of age: generational and cohort confusion. *Journal of Current Issues and Research in Advertising*, 26(2): 11-25.
- MacKenzie, S. B., & Lutz, R. J. (1989). An empirical examination of the structural antecedents of attitude toward the ad in an advertising pretesting context. *The Journal of Marketing*, 48-65.
- McQuail, D. (1983). *Mass Communication Theory: An Introduction*, London: Sage Publications.
- Milani, J. (2013). *An Uptick in Facebook's Payment's Business*. Retrieved May 14, 2013. <http://fforward.co/an-uptick-in-facebooks-payments-business/>

- Nicholas, D., Rowlands, I., Clark, D., & Williams, P. (2011). Google Generation II: web behaviour experiments with the BBC. In *Aslib Proceedings* (Vol. 63, No. 1, pp. 28-45). Emerald Group Publishing Limited.
- Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS*. Open University Press.
- Petrovici, D., & Marinov, M. (2007). Determinants and antecedents of general attitudes towards advertising: A study of two EU accession countries. *European Journal of Marketing*, 41(3/4), 307-326.
- Pollay, R.W. & Mittal, B. (1993). Here's the Beef: Factors, Determinants, and Segments in Consumer Criticism of Advertising. *Journal of Marketing* Vol. 57, 99-114.
- Román, S., & Cuestas, P. J. (2008). The perceptions of consumers regarding online retailers' ethics and their relationship with consumers' general internet expertise and word of mouth: a preliminary analysis. *Journal of Business Ethics*, 83(4), 641-656.
- Sirgy, M. J., Grewal, D., Mangleburg, T. F., Park, J. O., Chon, K. S., Claiborne, C. B., ... & Berkman, H. (1997). Assessing the predictive validity of two methods of measuring self-image congruence. *Journal of the academy of marketing science*, 25(3), 229-241.
- Speck, P. S., & Elliott, M. T. (1997). Predictors of advertising avoidance in print and broadcast media. *Journal of Advertising*, 61-76.
- Taylor, D. G., Lewin, J. E., & Strutton, D. (2011). Friends, fans, and followers: do ads work on social networks? How gender and age shape receptivity. *Journal of Advertising Research*, 51(1), 258.
- Wang, Y., & Sun, S. (2010). Examining the role of beliefs and attitudes in online advertising: A comparison between the USA and Romania. *International Marketing Review*, 27(1), 87-107.

MOBILE PHONE ADDICTION AMONG STUDENTS' AT A SOUTH AFRICAN UNIVERSITY

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ABSTRACT

The paper presents the results of research carried out to examine mobile phone addiction among students at a South African University. The results suggest that students exhibited addiction tendencies. Of the top sources of addiction were; a feeling of loss when students did not have their mobile phones with them, reduction in sleep patterns, use of mobile phones longer than intended, feeling of restlessness and irritability when not using mobile phone and use of mobile phones to escape from problems. Two main addictive symptoms were extracted and students' behaviour were categorised as ranging from loss of control to withdrawal.

INTRODUCTION

Mobile phones once regarded as an expensive gadget beyond the reach of the common man, has become ubiquitous. South Africa has seen a significant growth in relation to mobile phone access and usage. This growth is further attributed to the implementation of the numerous policies like the 1996 White Paper on Telecommunications. The introduction of such policy opened the mobile phone industry and facilitated the increase in penetration rate. New business opportunities have opened and the digital divide that was prevalence in the country is gradually reducing (UNICEF, 2012). Many businesses are embracing mobile commerce. The importance of mobile phones in businesses especially as an advertising tool has created major opportunities for businesses. Mobile phone penetration not only impacted businesses, but also individuals.

Mobile phones have created opportunities for people to contact family and friends (Chen & Katz, 2007), to relax (Leung & Wei, 2000), to be involved in recreational activities (Gao, Sultan & Rohm, 2010) and access social networking sites (Kabilan, Ahmad & Abidin, 2010). The purpose of mobile phone are further highlighted by Hooper & Zhou (2007) who noted that the motives behind the usage of mobile phones are usually social interaction, dependency, identity, safety, freedom, gossip and job related.

Whilst mobile phones have been hailed for providing benefits to both individuals and businesses, some researchers (James & Drennan, 2005; Chen, 2006; Grant & O'Donohoe, 2007; Zulkefly & Baharudin, 2009) are concerned with the excessive use of these devices and the impact of such to individuals. Evidence suggests that the excessive use of mobile phones may lead to a possible emotional attachment and problematic behaviours (Phillips, Butt & Blaszczynski, 2006). Hence, researchers wonder if excessive mobile phone use can result in

factors such as reduction in sleep patterns and escapism. Thus, there remains a strong belief, for example that users of mobile phone may experience addictive behaviours such as feeling lost, depression, moodiness, restlessness or irritableness when without their mobile phones (Hooper & Zhou, 2007; Zulkefly & Baharudin, 2009; Walsh, White & Young, 2007). Hence, many researchers caution that excessive use of mobile phones may lead to negative behaviours such as compulsion (Hooper & Zhou, 2007), loss of control (Zulkefly & Baharudin, 2009), withdrawal, salience (Walsh, White & Young, 2007), and reduced activities (James and Drennan, 2005). Thus, researchers pointed out that the above behaviours are often classified as addictive (White, Buboltz & Igou, 2011; Hooper & Zhou, 2007).

Addictive behaviour can be likened to be an abnormal behaviour that is outside the expected (Hooper & Zhou, 2007). In order to define addiction, researchers have used Young's (2004) definition who defined addiction as "uncontrollable urge, often accompanied by a loss of control, a preoccupation with use, and continued use despite problems the behavior causes" (p.403). Researchers (James & Drennan, 2005; Chen, 2006; Grant & O'Donohoe, 2007) have used similar definition on mobile phone addiction studies.

Students' mobile phone use

Studies indicate that students have been and continue to be one of the heaviest users of mobile phones (Petrova, 2007). Reasons why students use mobile phones may include creating and sustaining new relationships (Power & Horstmansh, 2004), keeping in touch with their parents (Frissen, 2000) and time management/coordination (Aoki & Downes, 2003). However, Walsh (2009) noticed that teenagers spend too much time on their mobile phones. Spending too much time on mobile phones might be detrimental with negative consequences. Although the responsibility of mobile phone use often rests with the user of such a device, for example, students are reported to use these devices excessively and are more prone to fall victim to addictive behaviours that leads to emotional distress, loneliness, boredom, and moodiness (James & Drennan, 2005) when they do not have their phones in their possession, for example. Unfortunately, as with other forms of addiction, these students may not see the extent of their dependencies to these devices. Hence, there is evidence suggesting that when students are unable to spend time on their phones, they exhibit addictive behaviours manifested by a feeling of frustration and anger (Walsh, White & Young, 2007). Similarly, Chen (2006) found the students in his sample demonstrating addictive behaviours with regards to mobile phone use. In students, high mobile use may lead to even worse problems than these mentioned above. High mobile phone use has been associated with financial problems such as indebtedness (Griffiths & Renwick, 2003). Despite all the problematic uses of mobile phones and concerns about its use, this device is acknowledged to be important for both personal and business use and still remains popular among students.

Despite the prevalence of addictive behaviours among mobile phone users, mobile phone addiction has received less attention from researchers. Much of the research on mobile phone addiction has concentrated in developed countries with scarcity of research on mobile phone addiction in developing countries like South Africa. Therefore, the aim of this study is to critically examine the usage patterns of mobile phones by students in a South African University in order to ascertain if such usage patterns and addictive behavioural tendencies observed by other researchers elsewhere is also evident in South African students.

RESEARCH METHODOLOGY

A non-probability sampling method was used. In order to identify mobile phone addictive tendencies among students, a questionnaire adapted from previous studies on mobile phone addiction (Hong, Chiu & Huang, 2012) and Internet addiction (Armstrong, Phillips & Saling, 2000; Charlton, 2002) was administered to a sample of 300 students from the Vaal University of Technology, Gauteng, South Africa. The data were analysed using descriptive statistics and factor analysis. Factor analysis indicated that three factors influenced mobile addiction among students. One factor was dropped because of low reliability. Only two factors, withdrawal and loss of control explained mobile use addiction among students. Of the 300 distributed questionnaires, 239 were returned. Of the 239 respondents, 46.4% (n=111) were males and 53.6% (n=128) were females. The majority of the respondents (43.5%, n=104) were aged between 22-23years old. Thirty one percent (n=75) of the respondents spent more than six hours per day on mobile phones.

RESULTS OF THE STUDY

<i>Item</i>	<i>F1</i>	<i>F2</i>
<i>Reduced sleep hours</i>	.760	
<i>I feel lost when I don't have my mobile phone everyday</i>	.726	
<i>I use my mobile phone to escape from problems</i>	.713	
<i>I am pre-occupied with my mobile phone everyday</i>	.684	
<i>I feel restless/moody/depressed/irritable when attempting to stop mobile phone use</i>	.554	

<i>I spend less time with my family</i>		.787
<i>I have repeatedly made unsuccessful efforts to cut back</i>		.781
<i>I find it hard to control my usage</i>		.758
<i>I usually use my mobile phone longer than originally intended</i>		.716
<i>I have often lied to family members or others to conceal my excessive</i>		.692
<i>Involvement</i>		
<i>Eigenvalue</i>	3.240	2.309
<i>% of variance explained</i>	27.002	19.242
<i>Cumulative % of variance</i>	27.002	46.244

DISCUSSION

The findings of this study indicate that students in a South African University are heavy users of mobile phones, felt loss when they did not have their mobile phones with them, experienced reduction in sleep patterns, used mobile phones longer than intended, felt restless and irritated when not using mobile phone and used their mobile phones to escape from problems. These findings are consistent with results reported in other studies.

Factor 1, labelled **withdrawal** consisted of five items with an eigenvalue of 3.240 and accounted for 27% of variance. Withdrawal refers to the feelings of panic, anxiety, agitation, or other negative affect when the activity an individual was engaged in does no longer exist (LaRose, Lin & Easton, 2003). Students reported that they: feel lost when they don't have their mobile phone and feel restless/moody/depressed/irritable when attempting to stop mobile phone use. Walsh, White & Young (2007) affirms that this is a common conduct especially among students who tend to show withdrawal symptoms such as feeling lost when without mobile phone and feelings of restlessness, moodiness, depression, and feeling irritable when attempting to stop mobile phone use. This finding is supported by James and Drennan (2005) who reported that students in their study felt insecure, lonely, and depressed when they did not have their phones.

Factor 2 consisting of five items is labelled **loss of control**. In the context of this study loss of control refer to all the mobile phone activities that when students perform takes longer than required or those that they find difficult to discontinue when required doing so. Loss of control has an eigenvalue of 2.309 and accounts for 19% of total explained variance. This factor includes variables which relate to using mobile phone longer than originally intended, finding it hard to control usage and repeatedly making unsuccessful efforts to cut back. In the current study, students indicated that they have made unsuccessful efforts to cut back on mobile phone use, are spending less time with family, are finding it hard to control their usage, usually use their mobile phones longer than originally intended and have often lied to control their excessive use. Previous research (Walsh, White & Young, 2007) also highlighted how excessive use of mobile phones may lead to loss of control.

CONCLUSIONS AND IMPLICATIONS FOR FURTHER RESEARCH

From the results of this study it is evident that respondents demonstrated addictive tendencies such as a feeling of loss when they did not have their mobile phones with them, reduction in sleep patterns, use of mobile phones longer than intended, feeling of restlessness and irritability when not using mobile phone and use of mobile phones to escape from problems. Parents as well as businesses should be mindful of these findings. Recently, businesses are targeting potential consumers on mobile platforms. It will be interesting to find out whether students present similar addictive tendencies when targeted with business offerings on these mobile platforms. Furthermore, what other opportunities should businesses explore in order to take advantage of these addictive tendencies depicted by the respondents of the current study and also evident in similar studies conducted elsewhere?

REFERENCES

Aoki, K., & Downes, E. J. (2003). An analysis of young people's use of and attitudes toward cell phones. *Telematics and Informatics*, 20(4), 349-364.

- Armstrong, L., Phillips, J. G., & Saling, L. L. (2000). Potential determinants of heavier Internet usage. *International Journal of Human-Computer Studies*, 53(4), 537-550.
- Charlton, J. P. (2002). A factor-analytic investigation of computer 'addiction' and engagement. *British journal of psychology*, 93(3), 329-344.
- Chen, Y.-F., 2006. Social phenomena of mobile phone use: an exploratory study in Taiwanese college students. *Journal of Cyber Culture and Information Society* 11, 219-244.
- Chen, Y. F., & Katz, J. E. (2009). Extending family to school life: College students' use of the mobile phone. *International Journal of Human-Computer Studies*, 67(2), 179-191.
- Frissen, V. A. (2000). ICTs in the rush hour of life. *The Information Society*, 16(1), 65-75.
- Gao, T. T., Sultan, F., & Rohm, A. J. (2010). Factors influencing Chinese youth consumers' acceptance of mobile marketing. *Journal of Consumer Marketing*, 27(7), 574-583.
- Grant, I., & O'donohoe, S. (2007). Why young consumers are not open to mobile marketing communications. *International Journal of Advertising*, 26(2), 223-246.
- Griffiths, M., & Renwick, B. (2003). Misfortune or mismanagement: a study of consumer debt crisis| NOVA. The University of Newcastle's Digital Repository.
- Hong, F. Y., Chiu, S. I., & Huang, D. H. (2012). A model of the relationship between psychological characteristics, mobile phone addiction and use of mobile phones by Taiwanese university female students. *Computers in Human Behavior*.
- Hooper, V., & Zhou, Y. (2007, June). Addictive, dependent, compulsive? A study of mobile phone usage. In *Conference Proceedings of the 20th Bled eConference eMergence held in Bled, Slovenia: Merging and Emerging Technologies, Processes, and Institutions*.
- James, D., & Drennan, J. (2005). Exploring addictive consumption of mobile phone technology. In *Australian and New Zealand marketing academy conference*.
- Kabilan, M. K., Ahmad, N., & Abidin, M. J. Z. (2010). Facebook: An online environment for learning of English in institutions of higher education?. *The Internet and Higher Education*, 13(4), 179-187.
- LaRose, R., Lin, C. A., & Eastin, M. S. (2003). Unregulated Internet usage: Addiction, habit, or deficient self-regulation?. *Media Psychology*, 5(3), 225-253.
- Petrova, K. (2007). Mobile learning as a mobile business application. *International Journal of Innovation and Learning*, 4(1), 1-13.
- Phillips, J. G., Butt, S., & Blaszczynski, A. (2006). Personality and self-reported use of mobile phones for games. *CyberPsychology & Behavior*, 9(6), 753-758.
- Power, M. R., & Horstmanshof, L. (2004). YYSSW (Yeah, yeah, sure, sure, whatever): keeping and supporting relationships through SMS text messaging. In *Human Communication and Technology Communication, National Communication Association Annual Convention, Chicago, Illinois*.
- UNICEF. (2012). South African Mobile Generation. Accessed online: www.unicef.org/southafrica/SAF_resources_mobile_generation.pdf. 08/05/2013
- Walsh, S. P., White, K. M., & Young, R. M. (2007). Young and connected: Psychological influences of mobile phone use amongst Australian youth.
- White, A. G., Buboltz, W., & Igou, F. (2011). Mobile phone use and sleep quality and length in college students. *International Journal of Humanities and Social Science*, 1, 51-58.

Young, K. S. (2004). Internet Addiction A New Clinical Phenomenon and Its Consequences. *American behavioral scientist*, 48(4), 402-415.

Zulkefly, S. N., & Baharudin, R. (2009). Mobile phone use amongst students in a university in Malaysia: its correlates and relationship to psychological health. *European Journal of Scientific Research*, 37(2), 206-218.

IMPLEMENTATION OF BASEL III GUIDELINES: A STUDY OF SELECT DOMESTIC AND FOREIGN COMMERCIAL BANKS IN INDIA

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ABSTRACT

The purpose of this paper is to provide an insight into the latest set of supervisory and capital adequacy recommendations put forward by the Basel Committee on Banking Supervision (BCBS) popularly referred to as Basel-III accord. The present paper attempts to study and track the extent of implementation of Basel-III norms by select domestic and foreign commercial banks operating in India, in accordance with the directives issued by the Indian banking regulator Reserve Bank of India (RBI). The paper reports significant implementation differences observed within the banking groups across categories, based on which suitable corrective recommendations have been proposed. The research for the present paper is based on extensive study of risk management framework put in place by the specific banking groups under focus. A primary survey by the means of a structured questionnaire was conducted within the banks towards understanding their preparedness and progress towards embracing the RBI prescribed Basel-III measures. The research findings are expected to be of value for the stakeholders of major commercial banks towards ascertaining the degree of risk underlying the operations of specific commercial banks. Further, the findings of the present study are expected to be of major value to the concerned banking groups towards making their existing risk management and supervisory framework more robust by plugging the Basel-III implementation gaps identified.

INTRODUCTION

In the recent times banking sector globally had been impacted by the subprime crisis to varying extent. The Indian banking sector too has found the going tough, especially in the light of bad advances and deteriorating asset quality. The central banking authority in India i.e. Reserve Bank of India (RBI) by its prudential norms on 'Asset Classification' and 'Capital-based Provisioning' have ensured that the impact of subprime bubble on the operational efficiency of Indian banking sector is minimized.

Basel accords formulated by the Basel Committee on Banking Supervision (BCBS) proposed a basic grounded framework on capital adequacy towards covering the loans advanced as a part of Basel-I norms. Over a period of time with the complexities of economic environment and inability of the existing regulatory framework to prevent the global financial crisis originating in USA, Basel-I accord was superseded by Basel-II accord in 2009 wherein more stringent capital adequacy, supervisory and market discipline oriented pillars were charted out by BCBS. In convergence with the international practices, Indian commercial banks adopted the framework postulated as a part of Basel- II accord, under active emphasis of banking regulator RBI.

In the chronology of Basel accords the latest version of norms agreed upon by BCBS member nations happens to be Basel-III. RBI in May 2012 had issued directives towards phased implementation of provisions enunciated under Basel-III by the commercial banks in India beginning January 1, 2013 with a cut off time of January 1, 2018. This has been subsequently postponed by three months to April 1, 2013 towards providing additional time to commercial banks that need to enhance their capital base in line with the new norms for strengthening the resilience of the global banking system.

REVIEW OF LITERATURE

Towards facilitating a structured and smooth transition by commercial banks into the Basel-III regime, RBI brought out *draft guidelines on implementation of Basel-III capital regulations in India*. The document serves as a lucid reference guide for the commercial banking entities of the country in terms of key amendments to be incorporated within the operational framework towards achieving Basel-III compliance.

A direct effect of strengthened capital requirements as back up for loan creation happens to be rise in bank's marginal cost of funding, thus ultimately leading to higher lending rates. According to findings by (Cosimano & Hakura, 2011) "The large banks, on an average, would need to increase their equity-to-asset ratio by 1.3 percentage points under the Basel III framework. Further, this would lead large banks to increase their lending rates by 16 basis points, causing loan growth to decline by 1.3 percent in the long run."

The desirability of the Basel III regulations is keenly debated. One strand of literature argues that there are significant macroeconomic benefits from raising bank equity. Higher capital requirement lowers leverage and the risk of bank bankruptcies (Admati *et al.*, 2010). Another strand of literature points out that there could be significant costs of implementing a regime with higher capital requirements (BIS 2010b, Angelini *et al.*, 2011). Higher capital requirements will increase banks' marginal cost of loans if, contrary to the Modigliani-Miller (1958) theorem, the marginal cost of capital is greater than the marginal cost of deposits, i.e. if there is a net cost of raising capital. In such an event, a higher cost of equity financing relative to debt financing, would lead banks to raise the price of their lending and could slow loan growth and hold back the economic recovery.

Under the Basel III implementation guidelines proposed by RBI, towards improving the quality of capital, the Tier-1 capital will predominantly consist of Common Equity, unlike the present framework under Basel II. In addition, the qualifying criteria for instruments to be included in additional Tier-1 capital outside the common equity elements as well as Tier-2 capital had been strengthened (RBI, 2011).

Towards improving the transparency of capital base, all elements of a bank's capital required to be disclosed along with a detailed reconciliation to the published accounts as per the RBI draft guidelines. As per the Basel-II framework the counterparty credit risk in the trading book covers only the risk of default of the counterparty. The reforms initiated under Basel-III includes an additional capital charge for Credit Value Adjustment (CVA) risk which captures risk of mark-to-market losses due to deterioration in the credit worthiness of a counterparty. The risk of interconnectedness amongst larger financial firms (defined as having total assets greater than or equal to \$ 100 billion) will be better captured through a prescription of 25% adjustment to the Asset Value Correlation (AVC) under the Internal Ratings Based (IRB) approach to credit risk. In addition, the guidelines on counterparty credit risk management with regard to collateral, margin period of risk and central counterparties and the counterparty credit risk management requirements have been strengthened (RBI, 2011).

Basel-II had proposed a minimum capital to risk-weighted assets ratio of 8%. Under the new guidelines forwarded under Basel-III, banks will be required to hold a capital conservation buffer of 2.5% of RWAs in the form of Common Equity to withstand future periods of stress bringing the total Common Equity requirement of 7% of RWAs and total capital to RWAs to 10.5%.

Implications of Basel-III Implementation on Commercial Banking Operations and Performance

An important consideration not to be lost sight amidst specific implementation timelines from central banking authorities are the possible operational and performance based implications which such an implementation may result in.

It may be argued that if the pace of implementation is forced regardless of economic and business impact and without thinking through all requisite complementary changes, then the recovery from recession could be unnecessarily slowed down, or worse, there could be a further contraction. If such a scenario results in, the cure would turn out to have been worse than the disease.

- Basel III will force banks to shift their business model from liability management (making business decisions about asset volumes and finding the financing in short-term wholesale markets as necessary) to asset management (asset volumes are constrained by the availability of long term funding).
- Impact of Basel III on the cost and availability of credit is of major consideration. A section of the experts argue that in the long run (once there is full adjustment) the costs of credit to most bank borrowers will be only moderately affected, implying only a modest impact on the level of output (and indeed it is possible that the eventual impact is a small fall in the costs of credit and rise of output); but that there will be a reduction in availability and higher cost at the riskier end of the credit spectrum. Alternative arrangements are needed for financing of risky exposures if a fall in economic growth is to be avoided (Allen B. *et al.*, 2010)
- Securitization process assumes a greater importance in this context. Shortcomings in securitization instruments and processes were key causes of the global financial crisis. But reestablishing securitization markets on a sounder footing appears essential in order to prevent a renewed credit contraction and to help prevent riskier borrowers from being cut off from credit.
- Implementation of Basel III will further require substantial portfolio adjustments amongst long term institutional investors, in order to accommodate the shift in bank balance sheets. Long term investors will need to shift from holding short term to long term bank debt and from debt to equity; and to absorb the securitized exposure of banks. The associated adjustment of both market prices and required returns can be accommodated but this will take time and presents a substantial coordination problem, since individual investors will only be comfortable with these changes if they are confident that other investors will accept them as well.
- The new liquidity rules could create new unintended systemic risks. In particular, the proposed definition of assets eligible to be treated as liquid under the proposed liquidity regulations is dangerously over-concentrated on government debt. The definition of acceptable liquid assets should be broadened to give banks more scope to hold liquidity in the form of commercial claims. The authorities should also clarify how liquidity will be obtained in times of crisis. The bank regulators need to ensure that the rules are flexible enough to allow banks to access market liquidity, either from the sale of assets or through short term borrowing; and the central bank needs to state in what circumstances it would provide emergency liquidity assistance to supplement bank access to market liquidity.

POTENTIAL IMPACT OF BASEL III IMPLEMENTATION ON COMMERCIAL BANKING OPERATIONS IN INDIA

Higher Capital Requirement: Presently, in India, most banks' common equity ratio falls in the range of about 6-10 per cent. Given this fact, banks may be able to comply with the higher capital requirement as per Basel III norms at least till 2014-15. This, without infusing any fresh equity, even while taking into account the marginal increase in capital requirement.

However, the increase in the minimum capital ratio, combined with loan growth outpacing internal capital generation in most government banks, will lead to a shortfall of capital. This will mount mainly between 2015-16 and 2017-18 due to introduction of a Capital Conservation Buffer (CCB). The CCB is designed to ensure that banks build up capital buffers during normal times, which can be drawn down as losses are incurred during a stressed period. The requirement of capital will be less to large private sector banks due to their higher capital ratios and stronger profitability. However, some public sector banks are likely to fall short of the revised core capital adequacy requirement and would therefore depend on government support to augment their core capital. The additional equity capital requirements in the public sector banks, mainly due to Basel III norms in the next five years, work out to around Rs. 1,400-1,500 billion.

If the government holds the existing shareholding, the recapitalization burden borne by it will be to the extent of around Rs. 900 – 1,000 billion. This will contribute to additional government borrowing to the extent of Rs. 1,000 billion. As per the estimates, on account of this extra government borrowing, the

country's fiscal deficit is expected to increase further, by about 25 basis points per annum. This will widen the fiscal deficit, inflation, lower economic growth, credit off-take and thereby bank profitability.

Pressure on Return on Equity: To meet the new norms, apart from government support a significant number of banks have to raise capital from the market. This will push the interest rate up, and in turn, cost of capital will rise while Return on Equity (RoE) will come down. To compensate the RoE loss, banks may look to increase their lending rates. However, this will adversely affect the effective demand for loan and, thereby, interest income. Further, with effective cost of capital rising, the relative immobility displayed by Indian banks with respect to raising fresh capital is also likely to directly affect credit off-take in the long run. All these affect the profitability of the banks.

Pressure on Yield on Assets: On account of higher deployment of funds in liquid assets that give comparatively lower returns, banks' yield on assets, and thereby their profit margins, may be under pressure. Further higher deployment of more funds in liquid assets may crowd out good private sector investments and also effect economic growth.

ACTIONS REQUIRED FROM COMMERCIAL BANKS

To address these issues and to protect their profitability margins, banks need to look beyond regulatory compliance and take proactive actions in the form of assessing their lines of business, level of risk profiles, economizing capital and drawing up funding strategies. Specifically, the banking groups may look forward to adopt the following strategies:

Change in Business Mix: Since retail banking has a comparatively lower risk weight compared to corporate banking (except in the case of clients who are A rated and above), the impact on higher allocation of capital will be less on retail banking. Further, in corporate banking, as chances of default in short-term loans is less, on an average, compared to chances of a default in long-term loans, banks need to shift towards short-term/retail loans, and to take a granular approach to protect their margins under the new Basel-III norms.

Change in Customer Mix: Banks need to review their capital allocation to each client segment and price it in line with the profile to ensure that capital is allocated to segments that generate higher risk-adjusted returns.

Low-Cost Funding: One of the most important factors to meet the new regulations is to have a stable low-cost deposit base. For ensuring this, banks need to focus more on having business correspondents/facilitators to reach customers as adding branches will increase costs and have an impact on the profit margin.

Improvements in Systems and Procedures: Refining the rating model/data cleaning/modernization of systems and procedures may help banks economize their risk-weighted assets, which will help reduce capital requirements to a major extent.

Specific Bank Experiences towards Basel III Implementation

State Bank of India

The State Bank of India and its associates will require around Rs. 1 lakh crore of capital over the next five years towards meeting Basel III norms (in addition to retained earnings). SBI received Rs. 7,900 from the government last fiscal. SBI asserts that they don't need further capital under Basel III all the way up to 2015. Counter Cyclical Buffer introduction may require capital beyond 2015. The extra 2.5% will come up in 4 tranches and the fiscal 2015 is expected to require a little capital.

Punjab and Sind Bank

As per the capital adequacy guidelines Punjab & Sind Bank has consistently achieved the benchmark ratios of 9% from 2010-12. The bank has expressed concerns towards meeting the timeline for achievement of Basel-III liquidity standards in the form of multiple ratios introduced. The provision of Credit Valuation Adjustment (CVA) with respect to counterparties is being duly exercised by the bank in a phased manner.

HDFC Bank

The private sector banks have an inherent advantage towards the phased Basel-III implementation on account of their existing fat capital cushion. As per the estimates of rating agency Fitch, the leading three private sector banks together will require close to ₹ 70,000 crore in fresh capital to meet the stricter norms specified under Basel-III norms. HDFC Bank has maintained a consistent Basel-II compliant capital adequacy ratio over the period 2010-2012 (refer Table 2). Thus, it is evident that HDFC bank is in a position to achieve the phased provisions of Basel-III accords as stipulated by RBI.

ICICI Bank

ICICI bank is second largest lender. The bank has consistently achieved Basel-II compliant capital adequacy ratios above the benchmark rate of 9% during the fiscal years 2010-2012 (refer Table 2). The bank has diversified into various lines of business to neutralize the risk in the existing macro-economic environment. This has parallely resulted in a multiple counterparties against whom CVA provisions are required to be fulfilled. The bank has geared towards fulfilling this requirement. The bank has indicated specific concerns towards the achievement of higher requirement of core capital in the form of common equity.

Standard Chartered Bank

Standard Chartered Bank is the leading foreign bank operating in India, both in terms of branch presence and business performance. The bank targets an exclusive category of the clients from high net-worth group, rather than catering to the masses. As per the original Basel-III implementation timeline, old style Basel-II capital instruments must be phased out by 10% per year. But given the uncertainty about the pricing of the new instruments, the bank is taking a cautious approach. As Basel-III Tier-1 and 2 securities will be more loss absorptive than under Basel-III, bank raised substantial Basel-III capital during the FY 2012-13 which was the last year they could so. One of the significant reasons behind this had been to cover the redemptions. The bank successfully achieved the benchmark Basel-II compliant adequacy ratio of 9 % during each of the fiscal year, but the ratio has show decline from a healthy 12.41 at FY ending 2010 to 11.05% at FY ending 2012 a trend which the bank looking forward to arrest going ahead towards achieving Basel-III compliance (Refer Table 2).

RECOMMENDATIONS

Among other deficiencies, the recent financial crises demonstrated shortcomings in corporate governance arrangements in the financial services industry, contributing to excessive risk taking. According to the BCBS, in many cases risk oversight by boards was inadequate, often due to insufficient time commitment, inadequate technical knowledge or insufficient diversity in board composition. Boards were often not sufficiently involved in the overall risk strategy or did not spend sufficient time discussing risk issues, as risk management was considered a low priority compared to other concerns. In addition, the risk management function has not been given appropriate weight in the decision making process.

With the proposed Directive the non-binding nature of most of the corporate governance principles which contributed to the lack of compliance with these principles should be transformed into binding regulations. This should help avoid excessive risk taking. The strengthening of corporate governance framework would essentially require:

- Increasing the effectiveness of risk oversight by boards.
- Improving the status of the risk management function, and
- Ensuring effective monitoring by supervisors of risk governance.

Table 3 provides a summarized overview of the options on corporate governance towards ensuring effective results from risk management function in particular and Basel-III implementation specifically.

CONCLUSION

Commercial banks in India have gradually aligned themselves to desired phased implementation of Basel-III compliant regulatory capital ratios, albeit with a delayed initiation from April, 2013. The major elements of Basel-III which are expected to impact banks in terms of capital based operations are the two new mandatory liquidity ratios in the form of Liquidity Coverage Ratio and Net Stable Funding Ratio. The mandatory ratios will cause commercial banks to move away from short-term lending practices with higher prices which will lower the margins available to individual banks. Additionally, the new accords emphasizes on improving the quality of an individual bank's overall capital base. The core capital base of the bank comprising of common equity have been strengthened by raising the minimum proportion of common equity in individual bank's

capital structure. This will tend to limit the specific ability of the individual banks and general ability of the banking sector to create advances.

Post 2008 subprime crisis and the consequent downfall of some of the leading banking entities, the need was felt for more stringent supervisory and capital adequacy framework for the banks. Basel Committee on Banking Supervision (BCBS) in consultation with G-20 nations came out, with a set of global banking supervisory and regulatory norms in the form of Basel-III. The prime objective of bringing out the latest variant in the Basel series of accord was insulate the banking sector round the globe during extended periods of stress.

Given the existing scenario it can be concluded that commercial banks in India are sufficiently equipped to adapt the phased implementation of Basel III capital accord. In India, RBI has released a timeline of initiating Basel-III compliant disclosures by all the banking entities within the country from April, 2013 and by the end of Fiscal Year 2018 all the banking entities are mandated to be fully Basel-III compliant. The banks are confident of achieving the timeline albeit with few hurdles in the initial phases.

Table 1: Original Timeline for Basel-III Implementation in India

	2011	2012	2013	2014	2015	2016	2017	2018	As of Jan 1, 2019
Leverage Ratio	Supervisory Monitoring		Parallel run 1 Jan 2013 - 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar-1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.63%	1.25%	1.88%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.13%	5.75%	6.38%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and Financials)				20.0%	40.0%	60.0%	80.0%	100.0%	100.0%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.88%	10.5%
Capital instruments that no longer non-core Tier-1 capital or Tier-2 capital	Phased out over 10 year horizon beginning 2013								
Liquidity Coverage Ratio	Observation period begins				Introduce minimum standard				
Net Stable Funding Ratio	Observation period begins							Introduce minimum standard	

CET1: Common Equity Tier-1, DTA: Deferred Tax Asset, MSR: Mortgage Servicing Right
Source: Reserve Bank of India

Table 2: Basel-II Compliant Capital Adequacy Ratios

Bank Name	2010	2011	2012
State Bank of India	13.39	11.98	13.86
Punjab & Sind Bank	13.10	12.94	13.26
HDFC Bank	17.44	16.22	16.52
ICICI Bank	19.41	19.54	18.52
Standard Chartered Bank	12.41	11.88	11.05
HSBC PLC.	18.03	18.03	16.04

Source: Indian Banks' Association

Table 3: Options on Corporate Governance

Objective	Activities Required
Improve time commitment of board members	<ul style="list-style-type: none"> Require credit institutions to disclose the number of mandates of board members. Require board members to spend time exercising their duties. Limit the maximum number of mandates a board member may hold at the same time.
Improve expertise of board members	<ul style="list-style-type: none"> Require disclosure of the recruitment policy and the actual expertise and skills of board members. Specify skills and expertise that board members must possess individually and collectively. Require the board members receive appropriate induction and continuous training. Mandatory nomination committee.
Counterbalance Management Dominance	<ul style="list-style-type: none"> Prohibit cumulating mandates of chairman and CEO in the same credit institution.
Improve diversity in boards' Composition	<ul style="list-style-type: none"> Require disclosure of internal policy on diversity. Benchmarking different practices at national and European level. Require diversity as one of the criteria of boards' composition Require credit institutions to establish a diversity policy.
Improve ownership by boards of risk strategy	<ul style="list-style-type: none"> Require a declaration on the adequacy of risk management systems. Require a risk statement stating credit institution's approach to risk.
Improve priority given by boards to risk issues	<ul style="list-style-type: none"> Require disclosure of policy and practice with regard to discussion and analysis of risk issues during board meetings. Require that boards devote sufficient time to risk issues. Mandatory risk committee at board level.
Improve the information flow to boards on risk	<ul style="list-style-type: none"> Require disclosure of policy and practice with regard to the information flow on risk to the board. Require boards to determine the content, format and frequency of risk information it should receive. Require that the risk management function report directly to the board.
Improve the standing and the authority of risk management function	<ul style="list-style-type: none"> Require disclosure of the standing and authority of risk management function. Require an independent risk management function. Require an independent chief risk officer. Require that chief risk officer have appropriate status and authority. Require that removal of the chief risk officer is subject to prior approval by the board.
Ensure efficient monitoring of risk governance by supervisors	<ul style="list-style-type: none"> Require that corporate governance is part of supervisory review. Require that the suitability of board members is subject to specific supervisory review. Require supervisors to review agendas and supporting documents for meetings of the board.

Source: Executive Summary of the Impact Assessment. Accompanying the document Directive of the European Parliament and the Council (July 2011), European Commission

REFERENCES

- Admati A. R., *et al.* (2011). Fallacies, Irrelevant Facts and Myths in the Discussion of Capital Regulation: Why Bank Equity is not Expensive, *Working Paper Graduate School of Business, Stanford University-California*
- Allen B., Chan K. K., Milne A., & Thomas S. (2010). Basel III: Is the Cure Worse than the Disease, *Cass Business School, City University, London*
- Angelini P., *et al.* (2011). Basel III: Long-term Impact on Economic Performance and Fluctuations, *Federal Reserve Bank of New York Staff Report No. 485 (Federal Reserve Bank, New York)*
- Bank of International Settlements, 2010b*. Assessing the Macroeconomic Impact of the Transition to Stronger Capital and Liquidity Requirements, [http:// www.bis.org/list/basel3/index.htm](http://www.bis.org/list/basel3/index.htm)
- Cosimano T. & Hakura D. (2011). Bank Behavior in Response to Basel III – A Cross Country Analysis, *International Monetary Fund (IMF) Working Paper*, WP /11/119
- Guidelines on Implementation of Basel III Capital Regulations in India (May 2012), *Reserve Bank of India*.
- Guidelines on Implementation of Basel III Capital Regulations in India – Clarifications (March 2013), *Reserve Bank of India*
- Modigliani F. & Miller M. H. (1958), The Cost of Capital, Corporation Finance and the Theory of Investment, *American Economic Review*, Vol. 48, pp. 261-297
- Roy S. (2013). Basel III Implementation – A New Challenge for Indian Banks, *Business Today*, February 2013.

LITHUANIAN EVOLUTION OF GLOBALIZATION

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ABSTRACT

The work provides an analysis of development the factors economic and social environment in Lithuania, the role of environmental factors for development the society at the present moment, presents the future changes in the national economy, describes the private security strengthening tendencies in Lithuania under the conditions of European Union (EU) and the urgent issues in the management of human resources trends of the society of the economic and social environment in Lithuania. The generalized results of theoretical studies and research for strengthening national strategy now and in future are presented; conclusions and recommendations for improving the management of state and society trends of future and human resources trends under the conditions of Lithuania are formulated (Lithuanian experience).

INTRODUCTION

We understand perfectly well today the correctness of our selected road of integration to the European Union (EU) and NATO as the development of national economy and market in the small states under the present factors of globalization in the world is difficult, therefore only in the composition of the EU and NATO (*the cooperation security guarantee*) the favourable circumstances are created for the development of the state and society [*The National*, 2013].

Money takes an important place in the life of people and the development of national economy and market: national currency or the single EU euro monetary system as the currency has its own designation, not only being the expression of price or value but also in terms of the purchasing power, capital accumulation and development [Makštutis, 2010].

A problem is that low-level competitiveness and slow development of the quality of life of people in Lithuania require to evaluate the dependence of the factors for integration into the EU and NATO as well as competitiveness already in the euro space but with the existing ratio of litas which has and will have an impact on the development of the quality of life in separate organizations, society and the state [*Government*, 2013].

At present, by the assertion of Lithuanian specialists one litas is of higher value than it will be after a year, and a year later it will be of higher value than after two years. These statements confirm the problem, even though a question should be answered [Makštutis, 2003, p.p. 6-7]: “How will the situation change in the national economy and market as well as the quality of life after euro introduction in Lithuania?” Why? The reason is that national currency, on the one hand, ensures the national stability in the country and, on the other hand, stops progress and integration to the single EU market.

The objective of research is to analyze the factors for the development of the state and society.

Research tasks: to identify the tendencies in the development of Lithuania, to predict perspectives for work and quality of life of people, to formulate and provide conclusions for improving the country’s development.

Research methods: scientific literature analysis, analysis of legal documents, statistical data analysis, logical analysis, systemic analysis, seeking to determine the principal tendencies of changes.

Methodology of effective management is expressed by management and self-management computations with the application of mathematical model 1 [Makštutis, 2010, p.p. 93-94]: $A = M_A + S_{BC}$, here: A – result of development society in state, the value of which is 100 percent; M_A – management of state; S_{BC} – self-management of organization in region of state.

References and other sources – the authors' published works, the normative acts of the state, national legal acts of regions, and other material of Lithuanian experience.

TATE AND SOCIETY TRENDS OF FUTURE

Tendencies for globalization of the world economy are not promising since research conducted by the EU statistical services already in 2003 showed that of 57 million people from the then twelve EU countries 23 million lived in poverty (*this accounted for 40.35 percent*) and the main reasons for integration were listed, i.e. the increased unemployment, unsafe work, failures of social security systems, housing crisis, debts, family structure, tax systems, and different levels of development [Makštutis, 2003, p.p. 6-7].

Those factors today are characteristic of Lithuania and of the quality of life of our people since analogous problems exist actually in every EU country. It means that individual states cannot or are not able to ensure the interests of national economy and market development in the single EU market [Indriūnas & Makštutis, 2008].

It may be noticed that coordination of developmental processes in geoeconomics and national economy, their political, economic and social factors is complicated, even though the EU institutions and the institutions of its member states are in close collaboration and seek to achieve the better results of their activity.

The already mentioned research performed in 2003 revealed the problem of poverty in the then EU countries, with its peak in Portugal (*26 percent*), and the lowest level in the Scandinavian countries (*5-6 percent*). During research the following factors of the standard of living [Makštutis, 2003, p.p. 6-7] were assessed: income, expenditure, unemployment, migration, employment, social status, health, education, housing, environmental structure, etc.

As at today it may be noticeable that the introduced single monetary system – the EU transnational currency – the euro did not yield sudden positive results that were expected and predicted, but, on the contrary, revealed the negative factors resulting from euro introduction, including the sudden jump in prices, decrease in the purchasing power, tendencies not stimulating wage increase rates, worsening social guarantees, the different level and speed of the economic development in the countries that became highlighted, increase of internal political, economic and social threats in the individual states [Makštutis, 2003, p.p. 6-7].

By the level of economic development already in 2003 the EU member states were subdivided into three levels [Makštutis, 2003, p.p. 6-7]:

1. Scandinavian countries (*poverty up to 6 percent*).
2. Benelux countries, France and Germany (*poverty up to 15 percent*).
3. Mediterranean Sea countries, Great Britain and Ireland (*poverty up to 20 percent*).

The said indicators already in 2003 worried the officers of the EU institutions. At that time the still higher concern was expressed by the institutions from Germany, Great Britain, France, Finland and other Scandinavian countries.

At the present moment in separate EU countries and the single EU market space, measures for facilitating negative factors are being prepared [Global, 2011]. However, forecasts are not very optimistic especially in the countries with the level of economic development higher than the common average. The results of those forecasts are explained by the common microeconomic factors that are expressed in the development of the activity of individual organizations, e.g., product cost-price structure, profit, marginal costs, variable costs, long-term costs and their dependence on the consumption processes that are valued by the balance of demand and supply in separate countries and the EU single market [Makštutis, 2003, p.p. 6-7].

It is therefore important to ensure that each state when implementing the main goals of the state would seek to achieve the main target – to protect the country’s society and to create the conditions for the development of the human labour activity at the level of national resources [Makštutis, 2010].

A question therefore arises: “Is Lithuania prepared politically, economically and socially to integrate into the single EU eurozone? The present-day country’s economic development results are unfavourable. In Lithuania the annual average wage in business companies in 2009–2010 amounted to 7200 €, whereas the EU average was EUR 28000 € annually [*Lithuania*, 2013]. However, prices for clothing, footwear, fuel and other goods in Lithuania are not by half cheaper of the EU average level [*Lithuania*, 2013]. Gross domestic product (GDP) per capita produced in Lithuania in 2011 accounted for 62 percent of the EU GDP average. According to this data, prices for clothing and footwear, consumer electronics, household appliances, and transport equipment in Lithuania almost coincide with the European prices. Somewhat cheaper prices in our country are for food, furniture and alcoholic beverages (Table 1) [*Lithuania*, 2013].

Table 1. Comparative prices for goods EU – Lithuania in percent

	EU27	Lithuania
1. Clothing and footwear	100	99
2. Consumer electronics	100	97
3. Personal transport equipment	100	92
4. Household appliances	100	91
5. Electricity, gas and other fuels	100	80
6. Alcoholic beverages and tobacco	100	77
7. Furnishing (<i>furniture, carpets, etc.</i>)	100	77
8. Food and non-alcoholic beverages	100	72

Wage growth in Lithuania is extremely slow. For example, the annual wage in manufacturing and services companies in 2009 went up to 7234 €, in Latvia up to 8596 €, in Estonia up to 9712 €, and in Romania up to 5891 € where it is just lower than the Lithuanian indicator [*Lithuania*, 2013].

Within the period of 2007–2009 the average wage in Estonia increased by six times, in Latvia by three times as compared to Lithuania, and in Romania twice.

Lithuania by the average wage is behind the EU average at least four times, whereas the produced GDP per capita is lower just by two times.

According to the EU Statistical Office Eurostat data of January 2013, the minimum wage in Lithuania was 290 € (*1000 Lt*), whereas in Latvia by three euros less, here the minimum wage was 287 € (*990 Lt*). The lowest minimum wage is in Romania and Bulgaria –157 and 159 € (*540 and 550 Lt*), accordingly, the average here is 223 € (*770 Lt*) [*Minimum*, 2013].

The highest minimum wage is in Luxembourg 1874 € (*6465 Lt*), Belgium 1502 € (*5180 Lt*) and Netherlands 1469 € (*5070 Lt*), the average here is 1615 € (*5572 Lt*) [*Minimum*, 2013].

Difference between the highest minimum average wage and the lowest minimum average wage in the EU space makes 7.24 times. This difference calculated for wage indicators describes national market tendencies in the consumer purchasing power and market competitiveness level as at January 2013.

The EU statistical data show the slow rates of development of our economy and market expressed by the national product creation, production, sales, competitiveness, application of progress, purchasing power in the market, demand and supply balance, and other indicators – the development of the quality of life in Lithuania [Bagdanavičius & Makštutis, 2010, p.p. 93-104]. Such overall measures in essence would create the real conditions for the more rapid development of Lithuania’s economy.

At present necessity arises to forecast our future and to prepare measures for facilitating negative factors in Lithuania until the integration into the single EU eurozone (*as national security guarantee*) and before the euro introduction and removal from circulation of the national currency – litas in Lithuania in 2015 [*The National*, 2013].

HUMAN RESOURCES TRENDS

Special attention shall be devoted to the development of national business projects, risk evaluation, technical-economic investment justification, and business plan preparation in order to more rationally use all the resources available in Lithuania and thus to form a basis for boosting our country's economy. However, personal initiatives alone are not enough as the present-day negative national market balance (*when import volumes exceed considerably export volumes*) impedes the national product creation, production and sale on the national and international market, therefore the purchasing power of people decreases or the value of the national currency – litas also declines. Demand consists of the consumption of people and of their purchasing power in the market, and when the national product creation, production and sale are not activated, the real conditions become constantly reduced to activate the human labour activity [Bredin & Söderlund, 2011] and to increase the value-added per employed person and capital accumulation function that increase directly the consumption of Lithuania's society and demand on the national market [Makštutis, 2010].

Demand on the national market is a cumulative value of human labour and its value-added at the present moment and in the future. As is known, human labour value-added in Lithuania is low and therefore the number of impoverished people is constantly increasing. Data published by the EU Statistical Office Eurostat in February 2012 show [*The Lithuania*, 2013] that in 2010 in Lithuania poverty or social exclusion threatened to over 33 percent of the population. The relatively higher number of such people was only in Bulgaria (*almost 42 percent*), Romania (*over 41 percent*), and Latvia (*over 38 percent*). In the EU, on the average, this indicator [12] stands at 23.4 percent. Within the EU context the best position in this respect belongs to the Czech Republic (*14 percent*), Sweden and Holland (*15 percent*), Austria, Finland and Luxembourg (*17 percent*) [*The Lithuania*, 2013].

Those statements are underpinned by the real wage of our people in the EU states even in the case when they work illegally as compared to the real average wage in Lithuanian rural and urban areas (*which is not even fixed*).

We should face very difficult economic, social and political consequences while possessing the said economic indicators at integration to the single EU eurozone and upon introduction of euro into Lithuania since euro introduction factors existing today in all EU states should have an impact on our country's economy and market.

As is known, no problems with supply exist in our market, as demand and consumption depend on the supply [Makštutis, 2010]: import of poor quality goods, their low cost-price and price accordingly. As a result Lithuanian people are still more impoverished as the investment environment becomes more unfavourable and the number of our people searching for jobs abroad is increasing. It is also difficult to speak today about the establishment of modern companies in Lithuania due to all above-mentioned economic and market factors as the society permits the organization to operate until it is beneficial to the society [Makštutis, 2010]. Here the due attention and purposeful activity of the Lithuanian institutions is necessary so that the country's system of normative acts would encourage progress creation and application as well as rational integration of all resources into the human labour activity in Lithuania [*Lithuania's*, 2013]. It is only this road that would actually accelerate the development of national economy and demand and supply balance in the national market in the rural and urban localities. The Lithuanian countryside at present is in general "forgotten" in the same way as individual regional towns and townships of the country, even though here our main resources of labour activity are hidden [*The Constitution*, 2006]. Our economy will be further moribund if they will not be used and the standard of living and quality of life of people will not comply even with the poorest EU level ISO 9000 series standards and total quality criteria.

The essence of the national state integration to the EU and NATO and competitiveness in the single market is expressed by the goals coordinated by the state and society and their achievement strategy. We must formulate those goals and justify their achievement strategy by all available national resources: natural, material, financial, and human [*The foundation*, 2013]. The rational use of human resources must be based on the acceleration of labour and labour activity processes which may be ensured only by the payment for work on the basis of competence and skills of people that are foreseen by the modern payment for work tendencies in the economically developed countries of the world [*The National*, 2013].

Scientists in those countries have developed and study the rational model of an organization. This is a new approach to the organization of the future, its vision and mission, since the longevity of the rational model is based as “efficiency” to be ensured by “new public administration” as organizational behavioural theories and application in the development of organizations will depend on them in the future [Makštutis, 2010]. As we notice, the quality of life of people is closely linked with the total quality development in the world, Europe and Lithuania, therefore implementation of ISO 9000 series standards as the quality management system in individual organizations is not sufficient as it will not ensure the long-term competitiveness of the organization in the market. The long-term competitiveness in the national and international market is ensured and will be ensured in the future by the total quality management that is started in the individual organization from the implementation of ISO 9000 series standards as the “foundation” for the development of the total quality management (*experience of Japan, USA, Scandinavia and other countries*).

Theory and practice revealed [Indriūnas & Makštutis, 2008] that the importance of the state under the conditions of integration and globalization in the world and EU is constantly increasing and therefore the Lithuanian institutions should change its activity strategy and tactics in the shortest term [*Lithuania's*, 2013] as in the other case we will be “thrown down” far from the present-day level of the averagely developed EU and world countries.

On the other hand, the main and necessary condition for the national economy acceleration is the permanent optimization of the activity of individual organizations in the private and public sectors. It creates the real conditions at the existence of the available national resources to permanently modernize organizations and to establish new modern organizations in all regions of the country with the use of progress in the creation, production and realization of the national product first of all in the country’s market and gradually in the international market [Makštutis, 2010]. However, if the export of poor quality goods into our market is not stopped, we will not be able to create the favourable investment environment for business [*Lithuania's*, 2013] which we have today in the territory of our country.

After generalization of the national state and society present-day results and future tendencies, it is possible to formulate and present the following conclusions.

CONCLUSIONS

With account taken of the Lithuanian economic development results, theoretical and practical provisions of research, conclusions, subjective and intended for practical application, may be formulated and provided:

1. Branch and regional management in the country is of low efficiency, thus impeding the development of national economy and reducing market competitiveness in the single EU market.
2. The system of the statutory acts of the state does not ensure the favourable investment environment for the development in the country’s regions, therefore the speed for national product creation, production and realization is slow, and the currency – litas value is constantly decreasing and national product competitiveness is not increasing.
3. In the economic development and public administration system, the strict limits between management and self-management functions are not identified among the subjects, personal responsibility is not determined and regional communities are not involved in the economic development for solution of community problems and their implementation.
4. The road of integration to the EU and NATO is correct even though the implementation of state development strategy and objectives does not ensure the economic development for poverty reduction in the society and these processes worsen the conditions for euro introduction in Lithuania in 2015.
5. Euro introduction in Lithuania in 2015 is untimely. It is necessary to implement the principles of the harmonious development of the state and society in the regions through the activation of their communities using all available national resources for economic development.

REFERENCES

Bagdavičius, J. & Makštutis, A. (2010). *Human Capital and National Economic Development in the European Union in the 21st Century*. The Role of Human Capital in the Development of the Countries and Regions of Central and Eastern Europe. Edited by A. Ignasiak-Szulc. Torun: „Dom Organizatora”, p.p. 93-104.

Bredin, K. & Söderlund, J. (2011). *Human Resource Management in Project-Based Organizations*. UK: Palgrave Macmillan, 208.

Global Sustainability as a Business Imperative. (2011). Edited by Stoner J.A.F. and Wankel Ch. UK: Palgrave Macmillan, 294.

Government has approved the introduction of the euro plan. [25 February, 2013].
<http://verslas.delfi.lt/verslas/vyriausybe-prite-euro-ivedimo-planui.d?id=60769787>

Indriūnas, A. V. & Makštutis, A. (2008). *Public Management Strategy in Lithuania*. Vilnius: Firidas, 264.

Lithuania prices and wages. [January 17, 2013] <http://verslas.delfi.lt/verslas/bgruzevskis-lietuvoje-net-alaus-uz-puse-europines-kainos-neisgersi.d?id=60443167>

Lithuania's Progress Strategy „Lithuania 2030”. [January 25, 2013].
<http://www.delfi.lt/news/daily/lithuania/valstybes-pazangos-strategija-lietuva-2030-pasmerkta.d?id=60449927>

Makštutis, A. (2003). *The Euro and the future of Lithuania*. Accounting, audit and tax were discussed. Nr. 36 (276). 2003-09-22, p.p. 6-7.

Makštutis, A. (2010). *Modern Management*. Vilnius: MAL, 215.

Minimum wage hikes removed Lithuania from Shame. [February 21, 2013].
<http://verslas.delfi.lt/verslas/minimalios-algos-suolis-isbrauke-lietuva-is-gedos-lentos.d?id=60721615>

The Constitution of the Republic of Lithuania. (2006). Kaunas: MP, 48.

The foundation of prof. A. Makštutis for the harmonious development of the state and society. [January 9, 2013]. www.fondarniraida.lt

The Lithuania - among the EU countries. [February 26, 2013].
<http://www.delfi.lt/news/daily/lithuania/lietuva-tarp-es-saliu-kur-didziausia-skurdo-ir-atskirties-gresme.d?id=55245917>

The National Security Strategy. [January 27, 2013].
http://www.google.lt/#q=nacionalinio+saugumo+strategija+2012&hl=lt&sa=X&tbo=d&tbs=clir:1,clira:c,clir:en&bav=on.2.or.r_gc.r_pw.r_qf.&fp=39f54b403e9f55c&biw=1600&bih=695

THE IMPACT OF ADMINISTRATION ORDERS AS A REDRESS MECHANISM FOR OVER-INDEBTED CONSUMERS: A CRITICAL ANALYSIS

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ABSTRACT

Many consumers across the globe are over-indebted and cannot meet their financial commitments at the end of the month because they are over-indebted. Consumers are over-indebted if they are or will not be able to satisfy in a timely manner all the obligations under all the credit agreements to which they are a party. The majority of these consumers need redress mechanisms to deal with their over-indebtedness. This paper will examine administration orders as a redress mechanism for over-indebtedness. The paper adopts research approach of literature review. It becomes more relevant when one considers that the research opinions of academics have not had much influence on the issue of redress mechanisms for over-indebted consumers. This paper is concluded on the outcome of the research findings that if ever possible to do; section 74 of the Magistrate Act 32 of 1944 court should be amended (South Africa).

INTRODUCTION

It is estimated that the size of the South African credit market is at present R800 billion. Credit plays a significant role in our lives. Unless one has vast amounts of cash and other savings, it is inconceivable that one will not at some point in one's life need to make use of credit. Many will also not have cash to buy clothes or other merchandise, and will have to apply for store cards or accounts to be able to buy them on credit.

Not many people can afford to buy things for cash, particularly expensive items like houses, cars and furniture. The big problem is that people are inclined to over-commit themselves financially. Credit has come so easy to obtain that millions of South Africans are in financial difficulty because they have to pay for their cars, houses, electricity, credit cards and they just don't have enough money to do this. Salaries are just too small and the result is that many people are over-indebted. Now the pressure is on and credit providers need their money because they are in business to make money. They have salaries to pay to their employees who need money to pay their creditors as well just like any other person.

Consumers buy things on credit every day and businesses use credit to buy their stock. People also use credit to pay for their consumables such as clothing, education fees and even food. The affected persons or parties in this thesis are amongst others the micro-lenders, banks, financial institutions, retailers, vehicle financiers, the National Credit Regulator, credit bureaux. Credit providers and consumers are also affected. Over-indebtedness of consumers is always manifesting itself in a consumer credit-driven society. At present it is also reasonable to say that the financial situation of many South Africans is appalling. It constantly remains a question as to how a specific legal system replies and how it should respond to the problem of over-indebtedness by providing debt relief measures that consumers may use in order to address their debt situation. It is significant to note that consumers may use a voluntary debt rearrangement that is based on the contractual principle of consent and some creditors will not be prepared to cooperate in such a voluntary system. The question then arises as to what recognized procedures are provided for by the law.

Where the debtors are insolvent they may apply for the debt relief measure in terms of the Insolvency Act 24 of 1936 and eventually a rehabilitation of the insolvent debtor. Rehabilitation will usually discharge unpaid pre-sequestration debt, but the applicant-debtors must, amongst other requirements,

similarly prove an advantage for creditors before they will succeed with such an application. Sequestration is therefore not readily available as a debt relief mechanism because it remains a drastic procedure.

The National Credit Act 34 of 2005 (hereinafter the “NCA” or “Act”) was introduced and it became effective as from June 2007. The Act must promote a fair and non-discriminatory marketplace for access to consumer credit and for that purpose to provide for the general regulation of consumer credit and improved standards of consumer information; to provide for debt re-organisation in cases of over-indebtedness; to regulate credit information; to provide for registration of credit bureaux, credit providers and debt counselling services, to establish national norms and standards relating to consumer credit; to promote black economic empowerment and ownership within the consumer credit industry; to prohibit certain unfair credit and credit-marketing practices; to promote responsible credit granting and use and for that purpose to prohibit reckless credit granting; to promote a consistent enforcement framework relating to consumer credit; to establish the National Consumer Tribunal and the National Credit Regulator and to provide for related incidental matters.

The NCA introduced debt review as a formal method that could be used by over-indebted consumers to bring about a debt rearrangement regarding credit agreements regulated by the Act. This was done in order to deal with over-indebted consumers and for resolving over-indebtedness based on the principle of satisfaction by the consumer of all responsible financial obligations as one of the purposes of the Act.

The purpose of this article is therefore to compare administration orders with other debt relief measures for assisting over-indebted consumers with specific reference to the debt review procedure and the sequestration process with a view to identify certain positive and negative aspects pertaining to these three procedures and to consider problem areas regarding the co-existence of these three procedures in South African legal practice. Within the ambit of this appropriate discussion, some suggestions are made concerning law reform.

THE CONCEPT OF ADMINISTRATION ORDERS IN TERMS OF THE MAGISTRATES’ COURT ACT 32 OF 1944

In terms of section 74 of the Magistrates’ Courts Act 32 of 1944, consumers could apply to a magistrate’s court for administration orders that would, if successful, compel the creditors to accept a rearrangement of their debts.

The administration order procedure, which has been described as an improved form of insolvency proceedings which provides debt relief for consumers whose debts amount do not exceed R50 000. Administration orders deal with relatively small estates where the costs of sequestration would drain the estate. However, administration proceedings offer incomplete facilities for the examination of consumers’ affairs and it may therefore be unsuitable where the consumers’ affairs are complex.

The procedure provides for a rearrangement of a consumers’ debt without sequestrating their estate. A court will support consumers by appointing an administrator to take control of the consumers’ financial affairs and to manage the payment of debts due to creditors. Consumers have responsibilities to make regular payments to the administrator. The administrator, after deducting necessary expenses and a specified fee determined by tariff, will in turn make a regular distribution out of such received payments to all creditors.

As pointed out in the Report on Administration Orders the basic philosophy behind the administration order process is to grant consumers a statutory rearranging of their debts, but without a discharge. It is submitted that the administration order procedure does not provide satisfactory debt relief to consumers because a large number of orders take many years to reach completion. Furthermore, evidence collected on the operation of the administration order procedure indicated that the process is largely ineffective in meeting the objective of providing debt relief to consumers because the majority of orders are unsuccessful.

THE ADMINISTRATION ORDER PROCEDURE

The administration order is designed to afford debt relief to persons with limited or no assets, but with enough income to pay off a limited obligation over a period. Administration orders appear to be a viable debt relief measure for consumers who have a regular income and whose debt burden does not exceed R50 000 and a debt situation which is thus deemed to be reasonably manageable. Consumers may obtain

administration orders from the court of the district in which they reside, carry on business or are employed, where:

- (a) the consumers are unable to pay the amount of any judgment obtained against them in court; or
- (b) the consumers have insufficient funds or assets at hand to meet their financial obligations, even where no judgment has as yet been granted.

Administration orders may also be granted in favour of consumers during a section 65 inquiry into the consumers' financial position. The application for administration orders enjoy preference and the court will suspend the section 65 hearing until the application for an administration order has been disposed of. The process for applying for administration orders is based on an application together with a prescribed statement of affairs in which the consumers affirm on oath that the names of the creditors and the amounts owed to them and all other statements or declarations made in the statement are true. The application is filed with the clerk of the magistrate's court where consumers reside or carry on business or are employed, and is served personally or by registered post to the creditors at least three calendar days before the hearing. The clerk of the court must, help illiterate consumers in preparing the application. In practice it is normal for attorneys to assist consumers in preparing the application.

The true basis for the application is the fact that consumers are unable to pay their debts. The amount of the outstanding debt coupled with the period it will take to pay it off is not a factor, or not the only factor to be taken into account when the court considers an application for administration order. Section 74 does not require that there should be a benefit to creditors and the fact that creditors may have to wait many years for their money should consequently not play a conclusive role in adjudicating an application for administration. Furthermore, section 74 does not make provision for any period within which any debt has to be paid and there is consequently no basis in law for the interpretation that the legislator intended a reasonable time, or a certain time within which consumers should be assisted to get out of their financial embarrassment.

In order for the administration order process coupled with the pre-liquidation composition to afford adequate debt relief to persons, the following are proposed regarding variation of the administration method:

- (a) The court must be empowered to enforce a repayment plan on creditors, which may also reduce consumers' debt to an amount that he can afford to repay. If it appears that consumers do not have enough assets or extra income and there is a likelihood of financial recovery, the court should be enabled to grant a moratorium in terms whereof enforcement action by creditors is barred for a stated time. Creditors' interests should nonetheless be taken into account by provisions that prevent abuse of the procedure;
- (b) Provision should be made for the elapsing of the order as soon as the costs and listed creditors are paid in terms of the repayment plan and the administrator has lodged a certificate to that effect with the clerk of the court. Payment in terms of the administration order should then result in an automatic discharge of all debt forming part of the administration order;
- (c) A discharge must not be excluded where the debtor's failure to complete the plan is due to circumstances out of his control. In such a case the court must be empowered to grant a discharge on application of the consumer;
- (d) The legislator should provide for a maximum period for the duration of the plan. A maximum period of five years, as a longer period can, in our view, negatively disturb the success of the procedure as a debt relief mechanism;
- (e) Since there is no limitation on the scope of the consumer's financial commitments in terms of the pre-liquidation composition, it is submitted that the limitation that currently applies in the case of the administration process should also fall away. Nonetheless, it should be ensured that the administration process will not be implemented in instances where there are enough assets to support implementation of the sequestration procedure or where there are complex transactions that need to be investigated. The court should therefore be empowered to refuse the granting of an administration order where sequestration seems to be a better option. The legislator should also guarantee that the period where after a discharge is granted should not be shorter than in the case of discharge after sequestration; and
- (f) The consumer should be excluded from obtaining further credit during the course of the repayment plan that would prevent him from completing the payments in terms of the plan. It is thus submitted that the current section 74 should be amended. Creditors in respect of debt incurred after granting of the administration order should not be included in the plan.

The debt mediation services should be established in the office of the magistrates' court, debt counselling and financial advice to debtors in general. The officials attached to the office should first attempt to reach an informal settlement before implementing the statutory composition procedure.

The purpose of the NCA is among others, to protect consumers by providing them with education about credit and consumer rights. The Act also provides for the registration of certain individuals as debt counsellors as they play an important role in the debt re-arrangement procedure discussed above. The Report on Administration Orders notes that the administration process is the suitable debt relief measure in cases where consumers do not have adequate realisable assets to comply with the advantage for creditor's requirement. Nevertheless, in order to obtain an administration order consumers should have enough income to make payments to the administrator for distribution amongst creditors. It is submitted that the combined statutory composition and modified administration procedure that we propose, will only be accessible to debtors who have sufficient income to enable them to repay their debt or a part thereof. As noted above South African law currently does not provide any debt relief to consumers who have no assets or income.

HEARING OF APPLICATIONS FOR ADMINISTRATION ORDERS BY THE COURT

The contents of an administration order take a prescribed form and should set out that the consumer's estate has been placed under administration, that an administrator has been appointed, and the amount that the debtor is supposed to pay. The order must precisely state a weekly or monthly amount to be paid over to the administrator by the consumer. This amount is calculated by taking into account the consumer's and his dependants' necessary expenses, certain prescribed periodical payments which the consumer is obliged to make and other payment commitments due in future.

The future debts are obviously excluded from the administration order and the court will exclude a certain amount of money from the weekly or monthly payments made to the administrator for the purpose of allowing the debtor to make periodical payments in terms of a credit instalment agreement or existing maintenance or mortgage bond commitments. Where the administration order provides for the payment of instalments out of future income, the court shall authorise the issue of an emoluments attachment or garnishee order to facilitate payments by the debtor.

The order may specify such conditions as the court may deem fit with regard to security, preservation or disposal of assets, realisation of movables subject to hypothec, or otherwise. It may also authorise the administrator to realise some of the assets of the debtor for the purpose of distributing the proceeds among creditors, but no assets subject to any credit agreement in terms of the NCA may so be realised without the written permission of the seller. Where the court authorises the administrator to realise any asset, it may amend the payments to be made in terms of the administration order accordingly. Hence, in contrast with debt review in terms of the NCA, administration may be regarded as a hybrid form of debt relief as it provides for the possibility that assets may be liquidated in addition to a rearrangement of debts.

THE EXPENSES OF ADMINISTRATION ORDERS

The expenses of administration orders are too high and some administrators collect money and fail to pay it over to creditors. Nevertheless, there are also competent administrators and administration orders are still a useful option in the appropriate circumstances.

The South African Law Reform Commission proposed the insertion of a new section 74X in the Magistrates' Courts Act in an attempt to provide an alternative debt relief measure and it did not specify how the pre-liquidation composition should link with the administration process. The latter is obliged to draw up a list of creditors and should pay them from the amounts received from the consumer. An important issue not addressed by the Law Reform Commission is whether or not the pre-liquidation composition would become a prerequisite in all cases of insolvency. The question also arises whether there will still be a necessity for the administration order procedure in its current form if the pre-liquidation composition is introduced in our system. The proposed composition procedure and a revised administration order process should be combined. The provisions of the administration process and the proposed composition procedure overlap to a great extent. Combination of these procedures will thus result in a great number of the provisions of the current administration order procedure being superfluous. The implementation of the modified administration process should only be probable if the creditors do not accept a pre-liquidation composition.

EXECUTION OF ADMINISTRATION ORDERS

An administrator must be appointed by the court to give effect to the order. The court exercises an independent discretion when appointing an administrator, but any individual may in principle be appointed as an administrator and there are no prescribed qualifications for an administrator as such. A government official may also be appointed as administrator. The appointment becomes effective only when the administrator gets a copy of the order or, where he or she is required to give security, after he or she has given such security and it must be given where the administrator is not a legal practitioner or an officer of the court. The giving of security by the administrator to the satisfaction of the court is meant to help as a guarantee for moneys received and paid into the trust account of the administrator, but the practices surrounding the giving of such security is at times doubted.

The clerk of the court is required to provide the consumer and the administrator with a copy of the administration order whereupon the administrator must send a copy by registered post to each creditor who proved a debt or was mentioned by the debtor in the statement of affairs.

The administrator has a lot of statutory duties but the main duty is to draw up a list of creditors and to distribute moneys collected from the debtor amongst them. The administrator must also distribute such payments pro rata among the creditors at least once every three months. Claims that enjoy preference under insolvency law should be paid out in the prescribed order of preference.

The list of creditors is lodged with the clerk and is open for inspection by creditors during office hours and a creditor may object to the list and should do so within 15 days after receiving a copy of the administration order. Where a specific creditor wishes to prove a debt before the completion of an administration order and which is unlikely to be included in the order, a claim must be lodged with the administrator. The administrator in turn notifies the consumer of the additional claim. Where the consumer admits the claim, and subject to the right of any other creditor who have not received notice of the claim to object to the debt, the administrator will file a notice with the clerk, adding the creditor's claim to the list. Where the consumer denies the claim, the creditor should be notified by the administrator and the creditor may then approach the court for a hearing on the disputed claim.

The court may in certain circumstances refuse the claim or allow it in part or in whole. On the other hand, the court may also require that the claim be supported by evidence, or postpone the hearing on such conditions as it may deem fit. Where the claim is allowed by the court, it is added to the list. A creditor who has sold and delivered goods to a debtor under a credit agreement according to the Magistrate' Court Act before the administration order was granted and who becomes entitled to demand immediate payment of the outstanding purchase price will, after he has notified the administrator that he elects to do so, obtain a hypothec over the goods in terms of which the outstanding amount will be secured. Nevertheless, any term of the agreement with regard to the creditor's right of termination of the agreement or with regard to his right to return the goods shall not in consequence of the consumer's non-compliance with the agreement be enforceable. The court may order that the seller take possession of the goods and sell them by public auction, or, if the seller, buyer and administrator so agree, to sell them by private agreement. The creditor must formerly pay to the administrator the amount of the proceeds of the sale in excess of the amount of his debt and the costs connected with the sale, or, if the net proceeds of the sale are insufficient to pay his debt in full, he may lodge a claim for the outstanding balance for inclusion in the list of creditors.

Where a person becomes a creditor after the granting of an administration order, or where a person sold and delivered goods to the borrower under a credit agreement after the granting of the order such a person may lodge a claim with the administrator, then the administrator shall inform the debtor of the new claim.

The consumer may then either accept or deny the claim, Where the consumer admits or denies the claim and the court allows the claim, the debt will be added to the list in terms of section the Magistrate' Court Act, then the creditor will not be entitled to a dividend in terms of the administration order until all other creditors who were creditors on the date of granting of the order have been paid in full.

CONSEQUENCES OF ADMINISTRATION ORDERS

Even though the estate of a person under administration may still be sequestrated in terms of the Magistrate' Court Act prevents individual creditors from continuing with their individual remedies against the debtor or his property after the administration order has been granted. Then again, remedies with regard to any

mortgage bond or any debt in terms of section 74B(3) are not restricted by an administration order. The court may also grant leave to institute enforcement proceedings. Where proceedings have already been instituted against a debtor in respect of any debt the court must, upon receiving notice of the administration order, suspend such proceedings. The court may grant costs previously incurred by the creditor, which may also be added to the judgment debt. A consumer who incurs additional debts during the currency of an administration order and does not disclose the existence of the order commits an offence. Furthermore, the court may upon application by any interested person, set aside the administration order.

The court under whose supervision an administration order is being executed, may upon application by the consumer or any interested party reopen the proceedings and call upon the debtor to appear for such further examination as the court may deem fit. The court may then on good cause shown suspend, amend or rescind the administration order.

Upon an application for rescission the court may, inter alia, if it appears that the debtor is unable to pay any instalment, suspend the order for such a period and on such condition as the court deems fit. The court may similarly amend the instalments to be paid and make the necessary amendments to any emoluments attachment order or garnishee order issued so as to ensure payment in terms of the administration order.

The administrator must lodge a certificate indicating payment in full with the clerk of the court as soon as the costs of the administration and all the listed creditors have been paid in full and send copies of the certificate to the creditors, whereupon the administration order lapses. The creditors are in principle prevented from continuing with their individual debt enforcement remedies and they receive repayment of the debt on an equal basis in the form of distributions made to them by the administrator. Nevertheless, the debtor must still repay the full amount of the claims plus costs and interest.

The repayment period is not limited in terms of the Magistrates' court Act and there is no provision for a discharge of any portion of the debt as is the case with sequestration followed by rehabilitation. It thus frequently happens that the administration order allows the debt to balloon and may keep the debtor in debt and locked into the process forever. Therefore, debtors often default in terms of the order and it can therefore not be viewed as a lasting debt relief measure.

Debtors who owe more than R50000 are also excluded from this remedy. Nonetheless, despite limitations and problems associated with administration it must be conceded that it may offer some relief in given circumstances. Then again, if the monetary cap was higher it could also have included those who are currently excluded from the relief offered by rehabilitation following sequestration since they cannot prove an advantage to creditors as required by the Insolvency Act. Within this context the impact of debt review in terms of the NCA will next be considered because it does not have monetary limitation.

CONCLUSION

Administration orders are in many instances a failure in practice, since debtors do not maintain regular payments. In addition, even if they do, most of the payments go into the pockets of the administrators as costs and in the end not enough is paid to creditors to reduce the debts. There are also no set minimum requirements that administrators have to comply with, nor are there any regulatory body governing administrators. Furthermore, the procedure also does not provide for a discharge of debts. An administration order lapses only once the costs of the administration and the listed creditors have been paid in full.

The Magistrates' Court Act does not provide for the repayment of the debt to take place within a fixed time-limit and this leads many consumers to remain trapped by their debts. In the end the procedure thus amounts to nothing more than a formal rescheduling of debt. The industry was and remains largely unregulated and abuses spreading like wild fire despite the existence of the National Association of Administrators. Problems experienced in practice with administration orders have prompted the Department of Justice to implement a reform project. In spite of this, as the debt-restructuring orders and debt counseling provided for in the NCA and its Regulations will have an impact on administration orders. Consumer education programmes and debt counseling are necessary to enable consumers to deal with credit in an accountable way.

The NCA tries to address the problem of over-indebtedness by providing a procedure in terms of which a debtor's credit agreement debt may be reviewed by a debt counselor with a view to maybe obtaining debt relief by means of a consensual or court ordered debt restructuring. At the outset it is important to note that these debt relief mechanisms apply only to credit agreement debt entered into by natural persons. During debt review process, the debt counselor is also tasked with investigating whether credit was granted recklessly. During the period in which a debt review is being conducted, the consumer is protected by a suspension on enforcement by the credit provider of the rights under the credit agreement. Once a consensual debt rearrangement agreement has been filed as a consent order or the court, in the absence of a consensual agreement, grants a court-ordered rearrangement, enforcement of the credit provider's rights under the credit agreement is further stayed pending compliance by the debtor with the rearrangement agreement or restructuring order.

Where credit has been granted recklessly, debt relief is afforded in the form of wholly or partially setting aside the relevant reckless credit agreement or suspending it or by suspending that particular credit agreement and restructuring the debtor's obligations under any other credit agreements. A consumer can access the process voluntarily in accordance with the provisions of the NCA. It also provides that a court has the discretion to refer a credit agreement for debt review in cases where legal proceedings have already commenced. It is concluded that the NCA does not address admin orders directly, but section 130 (3) of the Act has relevance. Debt counseling may be seen as a parallel and hopefully a better route than administration orders.

REFERENCES

Boraine A, The Reform of Administration Orders within a New Consumer Credit Framework, being a paper delivered on 11 Apr 2007 at the International Association of Consumer Law's 11th International Conference on Consumer Law.

Boraine A, Some Thoughts on the Reform of Administration Orders and Related Issues, (2003) 36 De Jure at 217.

Boraine A, van Heerden C and Roestoff M" A comparison between formal debt administration and debt review – the pros and cons of these measures and suggestions for law reform (Part 1)" 2012 De Jure, at 80-92.

Boraine A & van Heerden C, To sequester or not to sequester in view of the National Credit Act 31 of 2005: A tale of two judgements, PER / PELJ 2010(13)3 at 89/508.

Boraine A and Roestoff M, Developments in American Consumer Bankruptcy Law: Lessons for South Africa (Part One), 2000 Obiter, at 33- 52

Boraine and Roestoff, Developments in American Consumer Bankruptcy Law: Lessons for South Africa (Part One), 2000 Obiter 33 52ff

Campbell N & Logan S, The Credit Guide: Manage your money with the National Credit Act (2008), at 29. Kelly-Louw M, Prevention and Alleviation of Consumer Over-indebtedness, 20 SA Merc LJ (2008) at 222.

Roestoff M & Renke S, Debt Relief for consumers-The interaction between Insolvency and Consumer Protection Legislation (Part 2), OBITER 2006,at 99.

Roestoff M,n Kritiese evaluasie van skuldverligtingsmaatreëls vir individue in die Suid-Afrikaanse insolvensiereg, (LLD thesis UP 2002);

Roestoff M & Jacobs, Statutêre akkoord voor likwidasie: 'n toereikende skuldenaarremedie?" 1997 De Jure 189; Boraine 2003 De Jure 217.

Roestoff M & Renke S, Solving the Problem of Overspending by Individuals: International Guidelines, 2003 Obiter 25.

Roestoff M, Die Belang van Schuldsanering vir die Suid-Afrikaanse Insolvensiereg, 1996 De Jure 209 for a discussion of the Dutch schuldsaneringsregeling.

Otto JM & Otto RL, *The National Credit Act Explained* (2010).

Harms L, *Civil Procedure in Magistrates' Courts* (2011 update) par 48.2.

Campbell N & Logan S, *The Credit Guide: Manage your money with the National Credit Act* (2008), at 29.

Jordaan P, *The Credit Law of South Africa: A guide to consumers, credit users and credit grantors*, 1 ed (2007), at 6.

African Bank Ltd v Weiner 2005 4 SA 363 (SCA) 369 .

Barlow's (Eastern Province) Ltd v Bouwer 1950 4 SA 385 (E) 393.

Carletonville Huishoudelike Voorsieners (Edms) Bpk v Van Vuuren 1962 2 SA 296 (T) at 300.

Cape Town Municipality v Dunne 1964 1 SA 741 (C) 746.

Di Mata v Firstrand Bank Ltd 2002 6 SA 506 (W).

Ex Parte August 2004 3 SA 268 (W) 271.

Firstrand Bank Ltd v Fillis 2010 6 SA 565 (ECP) .

Fortuin v Various Creditors 2004 2 SA 570 (C) 573.

Madari v Cassim 1950 2 SA 35 (D) 38.

Naidoo v ABSA Bank Ltd 2010 4 SA 597 (SCA).

Oosthuizen v Landdros, Senekal 2003 4 SA 450 (O).

Volkkas Bank v Pietersen 1993 1 SA 312 (C) 315.

Weiner NO v Broekhuysen 2003 4 SA 301 (SCA) 305.

Centre for Advanced Corporate and Insolvency Law - University of Pretoria *Interim Research Report on the Review of Administration Orders in terms of Section 74 of the Magistrates' Courts Act 32 of 1944* May 2002

Report on the Review of the Law of Insolvency (Project 63) Vol 1 (Explanatory Memorandum) and Vol 2 (Draft Bill) (February 2000) schedule 4

SA Law Commission Report Project 63 Draft Bill Review of the Law of Insolvency 2000 Vol 2

Insolvency Act 24 of 1936

Magistrates' Court Act 32 of 1944

National Credit Act 34 of 2005

www.ncr.org.za.

MANAGEMENT PRACTICES CONTRIBUTING TO EMPLOYEE DISSATISFACTION AT THE INFORMATION AND COMMUNICATIONS TECHNOLOGY BUSINESS UNIT

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ABSTRACT

Management practices that contribute to employee dissatisfaction have been the subject of international research since the 1930s but remain an under-researched field in South Africa. This case study replicated findings of international studies such as gender and race under-representation at the top echelons of management; bullying of lower-level employees by managers; non-transparent recruitment practices; managers who lack human resource skills; and a bureaucratic or hostile culture. The main finding of this study is that an affirmative action (AA) policy does not always have the intended effect - employees would prefer appointment and promotion on the basis of meritocracy and with mentoring.

INTRODUCTION

Management practices are the main contributing factors with regard to employee dissatisfaction. This argument is supported by this study's findings and the literature that was reviewed. There is paucity of literature on employee dissatisfaction in South Africa, which indicates that employee dissatisfaction is under-researched in South Africa, particularly in the information and communications technology (ICT) industry.

The consequences of dissatisfied employees are varied and could render workplaces uncompetitive if they are not investigated and reduced. The findings of previous studies suggest that dissatisfied employees are frequently absent from work and that their workplace performance is poor (Nurullah, 2010), and when they feel alienated (Byars & Rue, 2008) they resign (Booyesen, 2007). Still others develop conditions such as coronary thrombosis (Coleman, 2007). These are some of the repercussions of dissatisfied employees, which may be attributed to the job itself, co-workers and management practices.

Problem statement and objectives of the study

International scholars have found that women are dissatisfied at work because they are under-represented at the top management level due to workplaces being patriarchal (Schaefer, 2008), because they are inexperienced and do not have the necessary management qualifications (Alvesson & Due Billing, 2009) and non-transparent recruitment practices (Slocum & Hellriegel, 2007). In some instances, employees are dissatisfied because they work in organizations where politics are rife (Sias, 2009) and managers foster a bureaucratic culture that ostracises employees who are not part of the clique (Townsend, 2007). Some employees are dissatisfied because they work for managers who bully (Watson, 2008) and sexually harass them (Schaefer, 2008), whereas other employees are dissatisfied because they are paid less than others or others are promoted because of their race (Booyesen, 2007). However, before this study was conducted, no scientific study had been conducted yet in the ICT business unit to identify management practices contributing to employee dissatisfaction.

The specific objectives of this study were as follows:

- to identify management practices that perpetuate gender and race under-representation at the top management level;
- to identify appointment and recruitment management practices which promote unfair labor practices;

- to identify workplace culture management practices which undermine workplace relations; and
- to identify workplace structure management practices which undermine workplace relations.

In the next section, management practices will be discussed.

MANAGEMENT PRACTICES

Human relations and Maslow's theory

Even though, in the late 1930s, human relations managers were more approachable and encouraged group or team work, evidence suggests that they lacked psychological skills (Haralambos & Holborn, 2004). Managers who embraced Maslow's theory of needs in the 1950s were criticised for failing to acknowledge that employees can be motivated by religion (Noon & Blyton, 2007) and climbing the corporate ladder (Bratton, Sawchuk, Forshaw, Callinan & Corbett, 2010).

Bureaucracy

In the 1950s, literature shows that some employees were satisfied working for bureaucratic managers because they used merit-based promotion criteria (Watson, 2008). However, this led to employee dissatisfaction because it created race and gender imbalances, as well as a platform for remuneration gaps between managers at the highest and lowest echelons (Babbie, 2007).

Perpetuating gender and race imbalances

Globally, females are insufficiently represented in top management positions (Jacobsen, 2007) because workplaces are mostly patriarchal. A study conducted in the USA in 2007 revealed that only 32% of computer system analysts were females (Schaefer, 2008). The USA's Department of Commerce, Telecommunications and Information Administration's 2002 report indicates that black women do not have the money to enroll for ICT programmes (Warschauer, 2004). Alvesson and Due Billing (2009) believe that another reason for women not occupying top management positions is because they are inexperienced and do not have the necessary management qualifications. In addition, non-transparent recruitment practices often prevent women from being appointed into senior or top management positions (Slocum & Hellriegel, 2007). The non-promotion of women to top positions makes them susceptible to unfair labour practices such as bullying (Watson, 2008) and sexual harassment (Schaefer, 2008).

Workplace culture

Managers who encourage culture of respect enhance employee satisfaction, whereas bureaucratic managers foster a bureaucratic culture. In terms of the former, managers and employees respect one another, are united and work harmoniously towards achieving organizational goals and objectives (Hostede, 1991). In terms of the later, employees are dissatisfied when they work for bureaucratic managers who do not trust them and therefore supervise them closely (Townsend, 2007). Furthermore, these managers do not share valuable and updated information with employees (McShane & von Glinow, 2005).

Workplace structure

Managers who play workplace politics undermine teamwork (Sias, 2009) and staff morale, frustrate those who are outside the group and promote their group members (Kotter, 1996). Managers who practice workplace politics adhere to workplace deliverables and labor policies (e.g. sexual harassment). It is thus difficult for senior or top managers to dismiss or discipline them, because their actions are not work-related or in breach of any workplace policies (Townsend, 2007).

Besides workplace politics, there are other reasons for managers behaving in a hostile manner towards employees. They are often bellicose because they fear losing their jobs (Booysen, 2007). Others get upset when employees question their decisions (Clegg, Courpasson & Phillips, 2006) and do not follow certain procedures when they execute their tasks (Ritzer, 2004). Furthermore, managers who are incompetent and emotional are usually hostile to their employees (Schaefer, 2008).

Human resource management

Despite the managerial practices mentioned in the previous section, there are certain types of managers who increase employees' satisfaction. They give employees an opportunity to be creative and develop themselves (Slocum & Hellriegel, 2007), as well as to use their own initiative (Prilleltensky & Prilleltensky, 2006), are charismatic (Bratton et al., 2010), encourage their employees to work together and do not alienate them (Haralambos & Holborn, 2004). In addition, they do not intimidate employees (Odih, 2007) and do not discriminate against employees based on gender, race or disability (Bratton et al., 2010).

In conclusion, the literature review has provided a broader understanding of how management practices such as bureaucracy, gender and race imbalances in top echelons of the organization and non-merit-based recruitment cause employee dissatisfaction. On the other hand, literature also shows that managers with HRM skills enhance employee satisfaction.

RESEARCH METHODOLOGY

Research design

The research approach for this study was both qualitative and exploratory. An ICT business unit was chosen as a case study because the researcher wanted to get an in-depth and subjective understanding management practices that cause employee dissatisfaction. Despite the limitations inherent to the qualitative research design, the researcher chose this design for the following reasons: it enabled him to solicit rich and credible data, and the researcher was trained to use this type of design.

Population and sampling

The population size of the workplace was 306. One of the definitions of a population is the entire "group of people" investigated or researched (Babbie & Mouton, 2007, p.100). All 306 employees, with the exception of those who participated in the face-to-face interviews and focus group, were invited to participate in the online survey. The researcher was influenced by Leedy and Ormrod (2010), who suggest that if the population is below 500, the researcher should "survey the entire population" (p. 213). According to the report that the researcher received from Bytes Technology, 154 employees clicked on the link, but only 121 ultimately completed the questionnaire. This means that the response rate was 39.54 %. The benefits of using the online survey were that it had an element of immediacy and that confidentiality was guaranteed.

Purposive sampling is a non-probability sampling technique in which respondents are chosen based on the "researcher's judgment" concerning how they can add value to the research problem (Babbie, 2007, p.193). Nine employees were purposely selected to participate in the face-to-face interviews; eight were selected to participate in the focus group. However, on the day of the focus group interviews, only three were present, because they feared reprisal from management or had urgent work commitments.

Data collection

Face-to-face interviews were chosen as one of the data collection techniques because, according to Neuman (2006), they have the highest participation rate. A semi-structured interview schedule was drawn up, and it began with a focus on the demographics of the sample (Berg, 2004). The other questions included aspects pertaining to gender, race, appointment, recruitment, workplace structure and culture, and were developed from the literature reviewed. Using face-to-face interviews also gave the researcher an opportunity to "probe" when respondents were not providing sufficient information (Neuman, 2006, p.73).

The researcher contacted Bytes Technology and asked them to host the online survey on their server. Since the questions had already been developed using the Question Mark Perceptions (QMP) software, they were Qparked and sent to Bytes Technology. To Qpark the questions, the researcher zipped questions together and sent them to Bytes Technology. Data collection took place from July 2010 until October 2010.

Data analysis

In order to analyze data (i.e. face-to-face interviews, focus group session and online, open-ended questions), the researcher manually grouped themes together. The reason for not using research coding software was because the researcher had prior experience of coding qualitative data without technological assistance. Since the respondents spoke English, it was not necessary for the researcher to translate data during transcription, and this saved time during data analysis.

Validity and reliability

The researcher piloted the online survey and paper-based interview framework. Piloting the online survey made the researcher confident that if the same instrument is used in other workplaces, it will yield similar results. Furthermore, the usage of triangulation also assisted the researcher to validate data through cross-verification from two or more sources (Leedy & Ormrod, 2010).

Ethical considerations

The researcher was careful when asking respondents questions regarding racial and gender issues, and it was made clear that their responses did not necessarily mean that they were racist or sexist. The results of this study were made available to all the stakeholders before they were published. In order to safeguard the identities of the respondents, only what they said was recorded, and no-one was forced to participate in this study.

RESULTS

In this section, the results of the study are presented. Firstly, the profile of the research respondents is outlined in terms of their demographic characteristics and employee grades. Thereafter, the results are organized thematically according to the research questions in this study.

Racial profile of respondents

In terms of labor legislation, workplaces in South Africa are compelled to appoint previously disadvantaged males and females. The racial percentages of the respondents were as follows: 72% were Black, 16% were White, 8% were Indian, and 6 % were Colored. Sixty-three percent of the managers were female and 37 % were male. The predominance of female middle managers in the ICT business unit was contrary to both international and other South African findings, which indicate that only a few black women are appointed as managers in ICT workplaces.

Employees' grades

In the nine face-to-face interviews that were conducted in this study, four respondents were G-graded specialists or managerial employees who did not have employees reporting to them (1 Black female, 2 Black males, 1 Indian male), and three were M-graded middle managers (1 Black female, 1 White male, 1 Black male) who did have employees reporting to them. Two of the respondents were T-graded employees (1 White female, 1 Coloured female) - these were non-managerial employees. The focus group comprised two G-graded employees (2 Black females) and one T-graded employee (1 Black female). The majority of the respondents (51 out of 121) in the online survey were G-graded. There were no EEE-graded employees who responded to the online survey – these were top management employees. The reality was that there were 2 White males, 1 Indian male and 1 Indian female.

Respondents' qualifications

The respondents had a range of tertiary qualifications. One respondent reported that he had a Master's in Business Administration (MBA), while one was a second-year MBA student. The others had national diplomas in ICT and/or project management. A diploma in ICT was the minimum requirement for any position in the ICT business unit.

APPOINTMENT AND RECRUITMENT

It was found that the following were management practices that dissatisfied respondents: lack of merit recruitment practices, lack of mentoring and appointing AA candidates.

Respondents stressed that they would be dissatisfied if employees were not appointed on merit, even when they were AA candidates. A black project manager said that women would be dissatisfied if they were not appointed on merit: "I think really if you are a candidate you would want the confidence, of saying that I have been chosen on merit." The futility of applying for a position was expressed by one respondent as follows: "They are just following the process as a formality, but they have already decided."

The majority of the respondents said that they would be dissatisfied if experience, skill, AA policy and other selection tools were not used to appoint and recruit managers. One respondent suggested that: "Some of the white males have experience but they do not have qualifications, and this experience is very valuable, and some will be retiring soon. So they should not retire with that knowledge, they should mentor AA candidates." Another respondent added that: "Well, there are people who are more management material than others. So there must be assessments of some kind to find out what kind of a person you are - like personality assessments."

Even though the management of the ICT business unit implemented AA, there were respondents who were dissatisfied with its implementation: "People should be appointed based on their experience. It is not fair to be held back because of affirmative action and statistics not being met; be fair to all. Treat all equal. All mechanisms do exist but are biased by AA policy;" "People must be appointed on the basis of their abilities. Race and gender should not be priorities, as this promotes nepotism and racism."

WORKPLACE CULTURE

Managers who created a culture of respect enhanced employees satisfaction, whereas bellicose managers fostered a bureaucratic culture. The majority of satisfied respondents said that a culture of respect enabled them to achieve their work objectives and create a good working environment. One respondent said the following: "That manager believes in me. I do not know if it is because I am a woman and he is an Indian man and it is part of his culture." However, dissatisfied respondents strongly believed that the culture in the ICT business unit was bureaucratic. Here are some of the phrases used by respondents to describe these management practices: "micro-management" and "culture of fear which stifles innovation and creativity."

WORKPLACE STRUCTURE

It was found that a lack of career-pathing; workplace politics; managers who lacked managerial competencies; unequal payment on the same grade; bullying either by managers or co-workers were the managerial practices that resulted in a hostile working relationship between managers and employees.

Lack of career-pathing

Limited opportunities to develop skills for career advancement emerged as one of the major sources of dissatisfaction. One female respondent expressed her dissatisfaction with the fact that females tended to be given mundane tasks, rather than opportunities to work on core tasks: "I do feel at certain times when there are technical projects, which means that there is a new capability application that the company has bought, I do feel that normally, it tends to go to the guys and not the ladies to do the implementation."

Workplace politics

The majority of the respondents said that politics was not beneficial for the business unit. In order for the organisation to be effective, respondents suggested the following management practices to prevent managers from engaging in workplace politics: "Eliminate or close the gap of giving middle management powers to employ their preferred candidates"; "We need to remove some level of power from whites;" and "Blacks still need to remove greed within themselves and grow sound leadership skills to run a giant organization."

Managers who lack human resource management skills

In the online survey, the respondents described emotional managers as follows: “Emotional and she is very temperamental; so-so depending on her mood and her problems.” Since these responses were from the online survey, the researcher could not determine the gender of those respondents who perceived female managers as being emotional. Other respondents added: “It sucks. They [managers] all have a bossy attitude. It is either their way or no way. Shame, I pity them because they are losing the most valuable employees. Half the department is looking to leave our department; and “I think my manager should improve on the human side.”

Bullying in the workplace

The other management practice experienced by a few respondents was bullying. One respondent reported that he had been bullied during a performance appraisal. With further probing, the respondent explained this as follows: “The issue with the performance appraisal it was like, eh, my manager did not check what I have done, she just came and said when I look at you I see 2.6. She just gave me the mark.” It was indicated that bullies are “same level employees.” It was also found that bullying was done by female employees. One respondent reported that bullying was done by “females over 40.”

Remuneration disparities

Another management practice that dissatisfied respondents was remuneration disparities. One responded by saying: “It is very painful, we are experiencing this currently, the morale is down, and it’s a serious stress to us.” This study also revealed that a manager earned less than an employee. When responding to the online survey, one respondent said the following: “This is currently the situation where individuals reporting to me with fewer years’ experience are earning more than I do.” Another respondent felt that racial disparities still existed: “Our country has to look into this problem of one race earning on average five times than the other races.”

DISCUSSION

Interpretation

The main aim of this study was to investigate the management practices which contributed to employee dissatisfaction by means of a case study. This study replicated the findings of international studies that some of the management practices which cause employee dissatisfaction are the following: race and gender under-representation at the top echelons of management (Schaefer, 2008); bullying of lower-level employees by managers (Watson, 2008); non-transparent recruitment practices (Slocum & Hellriegel, 2007); managers who lack human resource skills (Bratton et al., 2010); a bureaucratic or hostile culture (Townsend, 2007) and workplace politics (Sias, 2009).

Limitations

Since top managers did not participate in this study, the researcher could not determine which management practices contributed to their dissatisfaction. While this study was restricted to an ICT business unit and the findings cannot be generalized, it can be argued that the findings can be applied to situations beyond that of the actual case study. This study’s findings provide an in-depth insight into the management practices contributing to employee dissatisfaction in the multi-cultural workplace and how they can be addressed, especially in South Africa, where this area is under-researched.

Implications for practitioners, future research and recommendations

This study raised awareness among ICT managers, other line managers and human resources managers of the fact that if they do not address management practices that contribute to employee dissatisfaction, they might have difficulty in retaining and keeping employees satisfied. In addition, it showed that AA policy

does not always have the intended effect, and that employees would prefer appointment and promotion to be done on the basis of meritocracy and with mentoring.

Some implications for further research became apparent during the course of this study. Similar studies on employee dissatisfaction should be conducted with top managers and follow-up studies on employee dissatisfaction should be conducted as causes are addressed and relevant interventions are implemented.

This study points to the following findings, and this suggests that in similar contexts, management practices contributing to employees dissatisfaction could be addressed in the following ways: when top management positions are advertised, competent black managers and females should be considered; the selection process for managerial posts should not be solely based on interviews, but should include other tools such as psychometric testing; a mentorship program should be put in place to assist managers who have been appointed and lack experience; a salary audit should be conducted; the current appointment and recruitment processes should be implemented in a participatory, transparent and fair manner; awareness should be raised with regard to bullying and a workplace policy and procedure, as well as change management interventions, should be implemented to instill a sense of unity and teamwork in order to achieve organizational objectives.

REFERENCES

- Alvesson, M. & Due Billing, Y. (2009). *Understanding Gender and Organizations*. California: SAGE Publications.
- Babbie, E. (2007). *The practice of social research* (11th ed.). Belmont: Wadsworth.
- Babbie, E. & Mouton, J. (2007). *The practice of social research*. Oxford: Oxford University Press.
- Berg, B.L. (2004). *Qualitative research methods for the social sciences*. Belmont: Wadsworth.
- Booyesen, L. (2007). Barriers to employment equity implementation and retention of blacks in management in South Africa, *South African Journal of Labour Relations*, 31(4): 47 – 71.
- Bratton, J., Sawchuk, P., Forshaw, C., Callinan, M. & Corbett, M. (2010). *Work and Organizational Behaviour* (2nd ed.). New York: Palgrave MacMillan.
- Byars, L.L. & Rue, L.W. (2008). *Human Resource Management* (9th ed.). Boston: McGraw-Hill Irwin.
- Clegg, S.R., Courpasson, D. & Phillips, N. (2006). *Power and Organisations*. London: SAGE Publishers.
- Coleman, D. (2007). *Social Intelligence. The New Science of Human Relationship*. London: Arrow Books.
- Haralambos, M. & Holborn, M. (2004). *Sociology: themes and perspective* (6th ed.). London: Harper Collins Publisher.
- Hofstede, G. (1991). *Cultures and organizations: software of the mind intercultural cooperation and its importance for survival*. London: Macgraw-Hill Book Company.
- Jacobsen, J.P. (2007). *The economics of gender* (3rd ed.). Oxford: Blackwell Publishing Ltd.
- John, G. & Saks, A. (2011). *Organizational Behaviour: Understanding and Managing Life at Work*. (6th ed.). Toronto: Pearson Education Canada, Inc.
- Kotter, J.P. (1996). *Leading change: an action plan from the world's foremost expert on business leadership*. Massachusetts: Harvard Business School Press.
- Leedy, P.D. & Ormrod, J.E. (2010). *Practical Research and Design* (9th ed.). Boston: Pearson Education International.

- McShane, S.L. & Von Glinow, M.A. 2005. *Organizational behaviour: Emerging Realities For The Workplace Revolution* (3rd ed.). Boston: McGraw-Hill.
- Neuman, W.L. (2006). *Social research methods: qualitative and quantitative approaches* (6th ed.). New York: Pearson Education Inc.
- Noon, M. & Blyton, P. (2007). *The realities of work: experiencing work and employment in contemporary society*. United States: Palgrave MacMillan Ltd.
- Nurullah, A.D. 2010. Predictors of Job Satisfaction among Emerging Adults in Alberta, Canada. *International Journal of Business and Management*, 5(3): 1-15.
- Odih, P. (2007). *Gender and Work in Capitalist Economies*. London: Open University Press.
- Prilleltensky, I. & Prilleltensky, O. (2006). *Promoting Well-Being. Linking Personal, Organizational and Community Change*. New Jersey: John Wiley & Sons, Inc.
- Ritzer, G. (2004). *The McDonaldization of Society: Revised New Century*. Thousand: Pine Forge Press.
- Schaefer, T.R. (2008). *Sociology Matters* (7th ed.). New York: MacGraw-Hill.
- Sias, P.M. (2009). *Organizing Relationships: Traditional and Emerging Perspectives on Workplace Relationships*. Los Angeles: SAGE.
- Slocum, J.W. & Heilriegel, D. (2007). *Fundamentals of Organizational Behavior*. Australia: Thompson South-Western.
- Townsend, A. (2007). *Assertiveness and diversity*. New York: Palgrave McMillan.
- Warschauer, M. (2004). *Technology and Social Inclusion: Rethinking the Digital Divide*. Cambridge: The MIT Press.
- Watson, T.J. (2008). *Sociology, Work and Industry* (5th ed.). London: Routledge.

THE CONTRIBUTION OF SMMEs TOWARDS LOCAL ECONOMIC DEVELOPMENT IN MANKWENG TOWNSHIP, LIMPOPO PROVINCE, SOUTH AFRICA

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ABSTRACT

Poverty, unemployment and inequality are regarded as the triple challenges facing the majority of local communities in developing countries including that of South Africa. Small, Medium and Micro Enterprises (SMMEs) are seen as having the potential to contribute positively towards achieving greater socio-economic transformation within poor and disadvantaged communities. These enterprises are purported to have the ability to create jobs for the poor and enables them to earn an income required to purchase goods and services. As a result, SMMEs become a focal point of considerable attention to many government and private institutions in South Africa with the aim of achieving the overall economic development and job creation. In an attempt to enable the sector to perform effectively and efficiently, a number of support initiatives were introduced since 1995. However, there are a number of SMMEs in South Africa's localities such as Mankweng Township of Limpopo Province, yet many people continue to be unemployed, resulting in conditions of poverty. The latter is despite the implementation of various support initiatives for SMMEs in South Africa. The purpose of this paper is to investigate the contribution of SMMEs towards local economic development (LED) in South Africa with specific reference to Mankweng Township of Limpopo Province. In order to investigate the contribution of SMMEs towards LED, a variety of data collection methods were used which included the literature review and semi-structured questionnaire. The paper concludes that SMMEs form an important component in LED process given the provision of appropriate support for SMMEs and their accessibility thereafter.

INTRODUCTION

Globally, SMMEs are considered as a mechanism through which poverty, unemployment and inequality can be resolved (Ndabeni, 2006; Mensah and Benedict, 2010; Okpara, 2011). These enterprises are viewed as the strategy by which economically disadvantaged groups in local communities can have access to economic activities through the creation of jobs and generation of income (Ihua, 2009; Egana, 2009; Kongolo, 2010). Thus, the income generated through SMMEs allows marginalised groups such as the unskilled and uneducated people, female, disabled and rural families to access basic needs. Therefore, governments of various countries have instituted a number of interventions that are aimed at promoting and creating an environment that would enable this sector to perform. Studies show that SMMEs form an integral part of LED and are purported to resolve socio-economic problems in the majority of leading economies in the world (Kongolo, 2010; Okpara, 2011). They are regarded as the first and primary source of direct employment, income, tax revenue, innovation and economic redistribution in their area of establishment. The experience of prospering localities in developed countries, particularly in the Western Europe and Japan indicate that the SMMEs are at the centre of LED processes (Chew and Chew, 2008; Ihua, 2009; Kongolo, 2010). Simultaneously, studies conducted in developing countries such as South Africa demonstrates that SMMEs serve as significant mechanism towards socio-economic transformation (Ndabeni, 2001). The purpose of this paper is to investigate the contribution of SMMEs to LED with specific reference to Mankweng Township in Limpopo Province, South Africa. This paper reviews relevant literature on the contribution of SMMEs to LED and discussion of the empirical finding in Mankweng Township.

Classification and the Characteristics of SMMEs in South Africa

SMMEs represent diverse groups with differences relating to the economic sectors such as mining, construction, manufacturing, trade, retail and services (Ndabeni, 2006). These enterprises are to be found in both the formal and informal sectors of the economy. Generally, different countries and institutions classify SMMEs according to the number of employees, total turnover and/or the total value of capital assets. The *National Small Business Act* 102 of 1996 and its amendments in South Africa classify SMMEs on conditions of quantitative and qualitative standards. The quantitative standard provides for minimum level of total number of employees, annual turnover and value of capital assets in the enterprise. Qualitative standard would include enterprises that are being privately owned by individuals or groups which does not exceed quantitative criteria. The *National Small Business Act* 102 of 1996 categorise SMMEs into four groups of enterprises. The first group consist of informal survivalist enterprises, which are defined as a set of activities carried out by unemployed people unable to find permanent employment. In this group of enterprises the income is below the minimum standards, little capital investment, minimal skills training, low level of productivity and there is a little chance of these businesses to grow into larger enterprises (Perks, 2010). The majority of enterprises in this category are in service and, specifically the retail or trade sector. Additionally, the size of this group of enterprises tends to increase when the economy declines and decreases as the economy grows. Therefore, this category serves as a safeguard that provides a means of survival during economic difficulties. However, sustained employment growth and production are not likely to be attained in this group. This does not suggest that this group is not important since it represents between 70% and 80% of all SMMEs in South Africa (Dockel, 2005). Examples of such enterprises include hawkers, street vendors and spaza shops. The second group is the micro enterprises which are very small businesses involving the owner, some family members and at most micro enterprises have more than four regular workers. These types of enterprises still lack formality in terms of license or formal business premises. However, an entrepreneur has basic business skills, though not entirely, micro-enterprises will make transition into the formal small business.

Small enterprises comprise of employees fewer than 50 regular workers and medium enterprises employ up to 200 workers (Ndabeni, 2006). These groups of enterprises are owner-managed and are operated from fixed business premises and fulfil all the essentials associated with formality, including registration with taxation authorities. Medium enterprises, although still owner-controlled, have complex ownership and management structures with an increase in the division of labour (Mbonyane and Ladzani, 2011). Small and Medium enterprises operate within the formal sector and have access to technological devices such as computers, internet, telephone and other devices. This group of enterprises maintain a sustainable employment growth. Therefore, labour productivity is sufficient for workers in this group and income is above the poverty line. The categories of SMMEs can include different types of enterprises and can embrace a variety of firms from village handicraft maker, shoe maker, general dealer, spaza shop, mini bus taxi, hair salon, dress maker, small tourism, textiles, supermarkets, restaurants, wholesaler, vehicle repairs, metal working, brick making, electronic stores, internet café and public phone (Netswera, 2001). Some of these enterprises are dynamic, innovative and growing while others have little chance of growing into larger enterprises, able to access bank finance and becoming internationally competitive (Rogerson, 2006). Additionally, SMMEs could be characterised as, among other things, having ease of entry, small scale of the activity, use of labour intensive technology, high level of self-employment with high percentage of family workers. Thus, the contribution made by SMMEs to LED will differ according to their classes and sizes. The following section provides a discussion on the concept of LED in South Africa.

The Concept of Local Economic Development

The concept of LED has been accepted as a locality-based planning to respond to poverty, inequality and unemployment challenges in South Africa. The World Bank (2002) defines LED as the process by which the public, business and non-governmental sectors work collaboratively to create better conditions for economic growth and employment creation within local communities. The Department of Cooperate Governance and Traditional Affairs (COGTA) in South Africa refers to LED as an outcome based on local initiatives driven by local stakeholders. It involves identifying and using local resources, skills and ideas to promote economic growth and development. LED emphasis on the needs of communities and creating an environment for private sector investment through public sector investment and by supporting the retention, growth and development of enterprises (Malefane, 2008). The growth of businesses that use local resources, including labour and materials for production, will generate local wealth and jobs. According to Tsheola and Mokgokong (2012), LED includes the process of gradual improvement of a combination of job creation, income generation, formation of business partnerships, improvement of entrepreneurship, as well as increased economic output and enhanced market opportunities with localities. Therefore, LED recognises that people, business and government are best positioned to promote networks and partnerships within

municipalities in order to improve economic conditions that will stimulate growth, which is required to create jobs and ultimately reduce poverty (Tomlison, 2003; Kanyane, 2008; Phago and Tsoabisi, 2010). The following section discusses the contribution of SMMEs towards LED in South Africa.

The Contribution of SMMEs towards LED in South Africa

Since the national economies experience the predominance of SMMEs, this predominance is even more evident at the local economies (Ndabeni, 2006). SMMEs, rather than large enterprises, are seen as the engine to the South Africa's national economy and LED (Chew and Chew, 2008). They are regarded as the first and primary source of employment, income and innovation in the majority of rural communities and townships in South Africa. Pragmatically, SMMEs in South Africa generate about 35% of the GDP; contribute 54% of employment and 43% of the total salaries and wages of all private sector employees (Urban and Naidoo, 2010). These enterprises are purported to have the ability to resolve the growing levels of poverty, unemployment and inequality. According to Kesper (2001), the number of jobs created could influence a range of other standard of living conditions such as disposable income, home foreclosure rates and new small business start-ups. Additionally, SMMEs contribute to a significant proportion of all taxes in the local economy such as income tax, property tax and employment tax. Therefore, having more businesses in the local economy can enhance tax revenue for municipalities, bringing in more money to improve the provision of public services such as roads, electricity and water (Ihua, 2009; Egana, 2009; Kongolo, 2010). Mensah and Benedict (2010) add that SMMEs play a crucial role in poverty reduction. These enterprises create and sustain the jobs necessary for poor people to work and earn the income needed to purchase goods and services. SMMEs contribute to poverty reduction by creating employment either through the start-up of new enterprises or the expansion of existing ones and providing income to the poor. The poor in this regard refers to individuals who own micro and small enterprises, employees, the dependents of such poor employees or owners, the unemployed who may obtain employment from these enterprises and poor people who purchase goods and services from small enterprises in the community. In most cases, poor people opt for such enterprises because they have little choice, or adequate paid employment is not available.

RESEARCH METHODOLOGY

The study used qualitative research approach. Stratified sampling design was used to select SMMEs which represented the entire population in Mankweng Township. The researcher first identified the relevant strata and their actual representation in the population. The stratum was based on the size and types of SMMEs. Therefore, a total sample of 80 SMMEs was used for the study. A total of 80 semi-structured questionnaires were administered to SMMEs in the area to collect data on the classification and types of SMMEs as well as the perceptions of SMMEs owners/managers on the contribution of SMMEs towards LED in Mankweng Township.

EMPIRICAL FINDINGS

This section presents an analysis and interpretation of the empirical findings of the study. The findings are presented in tables and figures, and are further deduced to provide a clear understanding of the relationship between SMMEs and LED in Mankweng Township. The data collected in this section includes the types and the number of employees employed in SMMEs and a discussion on the contribution of SMMEs towards LED. The contribution of SMMEs towards LED was based on the perceptions of the SMMEs owners/managers on their ability to create jobs, generate income and reduce poverty in Mankweng Township.

SMMEs in Mankweng Township

Table 1: the types of SMMEs in Mankweng Township

Types of Enterprises	Frequency	Percent	Valid Percent	Cumulative Percent
Spaza shops	11	14.5	14.5	14.5
Taverns	5	6.6	6.6	21.1
Carpentry	5	6.6	6.6	27.6
Restaurants	4	5.3	5.3	32.9

Hair salons	10	13.2	13.2	55.3
Hawkers/street vendors	11	14.5	14.5	69.7
Shoe makers	3	3.9	3.9	73.7
Welding	4	5.3	5.3	78.9
Dress makers	6	7.9	7.9	86.8
General dealers	4	5.3	5.3	92.1
Vehicle repairs	3	3.9	3.9	96.1
Bricklaying	3	3.9	3.9	100.0
Others	7	9.2	9.2	42.1
Total	76	100.0	100.0	

Table 1 above illustrates the different types of enterprises that are found in Mankweng Township. It is evident that spaza shops and hawkers/street vendors are dominant business activities in Mankweng Township, with shared 14.5% each, and followed by hair salons which constitute 13.2%. Dress makers constitute 7.8% of the total sample, while taverns and carpentries constitute 6.6%. Restaurants, weldings and general dealers share the same percentage of the total sample with 5.3%. Shoe makers, vehicle repairs and bricklaying constitute the least section of the sample with 3.9%. Other business activities include car wash, public phones, electronics and mini bus taxis which constitute 9.2%. Therefore, it can be concluded that SMMEs in Mankweng Township falls into different types of sectors.

Figure 1: The employees employed in the enterprise

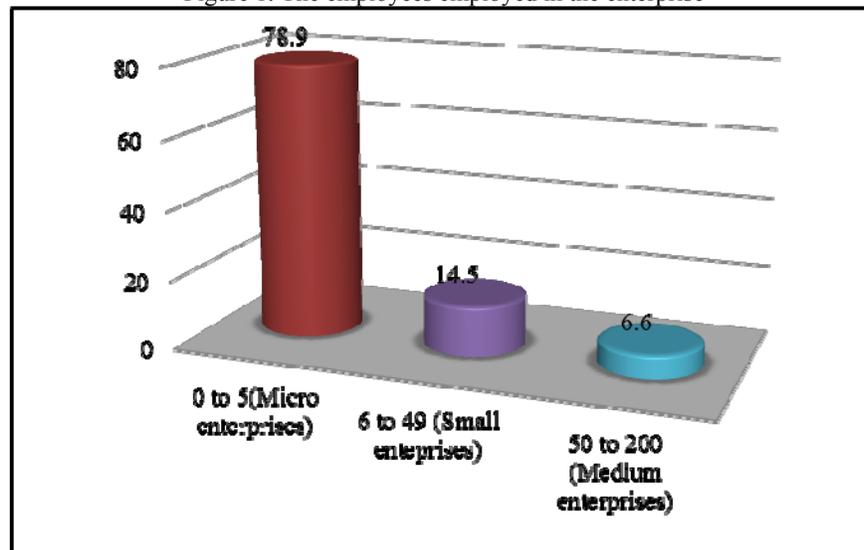


Figure 1 above demonstrates the number of employees employed in different classes of SMMEs. Most employees are employed in the micro or survivalist enterprises as opposed to small and medium enterprises. The majority of the enterprises employed 0 to 5 employees (micro and/or survivalists enterprises). This group of enterprises represents the highest proportion of the total sample and accounts for 78.9% of SMMEs. The other group of enterprises employed 6 to 49 employees (small enterprises) and account for 14.55 of the total sample. The last group of enterprises comprise 50 to 200 employees (medium enterprises) and accounts for 6.6 5 of the total sample. Therefore, it can be concluded that most employees are employed in micro and/or survivalist enterprises which employ 0 to 5 employees, particularly family members.

The Contribution of SMMEs towards LED in Mankweng Township

This section provides an analysis on the perception of SMMEs owners/managers on the contribution made by SMMEs towards LED in Mankweng Township. This was measured through the ability of SMMEs to create employment, generate income and reduce poverty.

Table .2 Perceptions of the SMMEs owners/managers on the contribution of SMMEs to employment creation

The level of satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Adequate	25	32.9	32.9	32.9
Neutral	27	35.5	35.5	68.4
Inadequate	24	31.6	31.6	100.0
Total	76	100.0	100.0	

Table 2 above demonstrate SMMEs owners/managers' perceptions on the contribution made by SMMEs towards employment creation in Mankweng Township. The majority of the SMMEs owners/managers indicated the contribution made by SMMEs to job creation as neutral, this group of owners/managers account for 35.5% of the total sample. However, a slightly different group of SMMEs owners/managers (32.9%) indicated that SMMEs contribute adequately towards employment creation. About 31.6% of SMMEs owners/managers indicated that the contribution made by SMMEs toward employment creation is inadequate. This suggests that the majority of the SMMEs owners/managers view SMMEs as having potential to create jobs. This group of people venture into the SMMEs sector in order to create jobs for themselves. However, a different group of owners/managers stated that the quality of jobs created in terms of wage and work conditions are not as good as the larger enterprises.

Table 3: Perceptions of the SMMEs owners/managers on the contribution of SMMEs to income generation

The level of satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Adequate	21	27.6	27.6	27.6
Neural	35	46.1	46.1	73.7
Inadequate	20	26.3	26.3	100.0
Total	76	100.0	100.0	

Table 3 above illustrates the perceptions of SMMEs owners/managers with regard to the contribution of SMMEs towards income generation. The largest percentage of the SMMEs owners/managers indicated the contribution made by SMMEs towards income generation as neural, this group constitutes 46.1%. Only 27.6% and 26.3% of the SMMEs owners/managers respectively indicated that the contribution made by SMMEs towards income generation is adequate and inadequate. This basically suggests that SMMEs in Mankweng Township are viewed as a mean to income generation for those who do not have any other forms of income generation activities. However, the income generated by these SMMEs is low because most of the enterprises in the area are micro and/or survivalist enterprises which make minimal amount of income.

Table 4: Perceptions of the SMMEs owners/managers on the contribution of SMMEs to poverty reduction

The level of satisfaction	Frequency	Percent	Valid Percent	Cumulative Percent
Adequate	24	31.6	31.6	31.6
Neutral	34	44.7	44.7	76.3
Inadequate	18	23.7	23.7	100.0
Total	76	100.0	100.0	

Table 4 above indicates the perceptions of SMMEs owners/managers on the contribution of SMMEs towards poverty reduction in Mankweng area. The majority of the SMMEs owners/managers (44.7%) indicated that the contribution made by SMMEs towards poverty reduction is neutral and 31.6% of the SMMEs owners/managers indicated that SMMEs contribute adequately to poverty reduction. However, the smallest proportion of the SMMEs owners/managers indicated that SMMEs contribute inadequately towards poverty reduction. This basically suggests that SMMEs plays an important role in improving the living standard of the majority of people. Many people in the area make survival out of these entrepreneurial activities. One of the SMMEs owners/managers indicated that “if it was not for the business they are operating they would be unemployed and having no income for their sustenance”.

CONCLUSION

The purpose of this study was to investigate the contribution made by SMMEs towards LED in Mankweng Township. The study revealed that SMMEs form a vital element of the LED process, and their contributions in terms of employment, income and poverty reduction is commonly acknowledged. However, the study also demonstrates that most of the SMMEs in Mankweng Township operate within the categories of micro and/or survivalist enterprise of the informal sector. Therefore, their contributions towards LED are limited. Based on the research findings, the study recommends that information about SMMEs support programmes offered by national, provincial and local government should be disseminated to the local enterprises in Mankweng Township. These would include information on financial and non-financial support that would assist small business owners/managers to be aware of the support programmes offered. Access to this information and support to SMMEs would allow these SMMEs, particular the micro enterprises to make transition into small and medium enterprises and will improve their contribution to the local economy.

REFERENCES

- Chew, R. and Chew S. (2008). A Study of SMEs in Singapore. *Journal of Enterprising Communities: People and Places in the Global Economy*, 2(4), 332-347.
- Dockel, M. (2005). SMMEs: Do They Live Up to Expectation? *Management Today*, 20(10), 58-61.
- Egan, V. (2009). Environmental Constraints on Small Enterprises in Tanzania: A Case Study Of The Retail, Electrical, Retail Clothing and Travel Industries in Dar Es Salaam. *Repositioning African Business and Development for the 21st Century*, Simon Sigué.
- Ihua, U. B. (2009). SMMEs Key Factors: A Comparison between United Kingdom and Nigeria. *Journal of Social Science*, 18(3), 199-207.
- Kanyane, M. H. (2008). Conceptualizing Local Economic Development as Community Engagement Strategy for Poverty Alleviation. *Journal of Public administration*, 43(4.1), 698-707.
- Kesper, A. (2001). Failing or Not Aiming to Grow? Manufacturing SMMEs and Their Contribution to Employment Growth in South Africa. *Urban Forum*, 12 (2), 171-330.
- Kongolo, M. (2010). Job Creation versus Job Shedding and the Role of SMEs in Economic Development. *African Journal of Business Management*, 4(11), 2288-2295.
- Malefane, S. R. (2009). Structuring South African Municipalities for Effective Local Economic Development Implementation. *Journal of Public Administration*, 44(1), 156-168.
- Mensah S.N, and Benedict, E. (2010). Entrepreneurship Training and Poverty Alleviation: Empowering the Poor in the Eastern Free State of South Africa. *African Journal of Economics And Management Studies*, 1(2), 138-163.
- Mbonyane, B. and Ladzani, W. (2011). Factors that Hinder the Growth of Small Businesses in South African Townships. *European Business Review*, 23(6), 550-560.
- Ndabeni, L. (2006). Small Medium and Micro Enterprise Development and Local Economic Planning In Rural

Localities of South Africa. *The Rural Citizens: Governance, Culture and Well Being in the 21st Century*. Plymouth: University Of Plymouth.

Netswera, F. G. (2001). Perception of Johannesburg Small Business Operations about their Support System. *South African Journal of Business Management*, 32(2), 31-37.

Naidoo, R. and Urban, B. (2010). The Relevance of Operational Skills towards Business Sustainability: A Focus on SMME Manufacturers in the Vaal Triangle Region. *Acta Commercii*, 234-248.

Okpara, J. O. (2011). Factors Constraining the Growth and Survival of SMEs in Nigeria: Implications for Poverty Alleviation. *Management Research Review*. 34 (2), 156-171.

Phago, K. G. And Tsoabisi, S. J. (2010). Small, Medium and Micro Enterprises in the South African Local Government. *Africa Insight*, 40(2): 153-164.

Perks, S. (2010). Problem-Solving Techniques of Growing Very Small Businesses. *Journal of Enterprising Communities: People And Places In The Global Economy*, 4(3), 220-233.
Republic of South Africa (1996). *National Small Business Act*. Pretoria: Government Printer.

ogerson, C. M. (2006). Developing SMMEs in Peripheral Space: The Experiences of Free State Province, South Africa. *South African Geographical Journal*, 88(1), 66-78.

Tomlinson, R. (2003). The Local Economic Development Mirage in South Africa. *Geoforum*, 34, 113-122.

Tsheola, J.P. and Mokgokong M.J. (2012) Tsheola Public Service Delivery and Local Economic Development in South Africa's Impoverished Communities. *Journal of Public Administration*, 47(1.1), 379-393.

World Bank (2002). Local Economic Development: A Primer for Developing and Implementing Economic Development Strategies and Action Plans. www.Worldbank.Org [17/04/2010].

THE EFFECTS OF LABOUR LAWS ON THE SOUTH AFRICAN AGRICULTURAL SECTOR

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ABSTRACT

The purpose of this paper is to investigate the causes of labour unrest in the agricultural sector of South Africa. South Africa's increasing number of labour unrest is a threat to economic stability. Democracy and labour laws was an attempt to bring about a better life for all South African citizens. In 1994 the South African government reinforced reformed labour laws frameworks to ensure a non-sexist, non-racial and equality based democratic society as a way of protecting labourers from exploitation and abuse. The legislative frameworks such as Basic Conditions of Employment Act of 1997, Labour Relations Act No 66 of 1996 and Employment Equity Act No 55 of 1998 regulate the relationship between the employers, employees and trade unions in the country. Despite the existence of these legislative frameworks, labour unrest continues unabated in the agricultural sector with unfavourable consequences on employees. These unfavourable consequences include unfair wages, unfair treatment and worker's conditions. The government's intent to reduce poverty through private sector employers such as the Agri South Africa (AgriSA) therefore continues to be a recurring problem. The Agricultural sector in South Africa creates jobs through agricultural projects in rural areas and also helps in improving the living conditions of the people. This paper uses the available literature to argue that labour unrest in the agricultural sector of South Africa is one of the major causes of unemployment.

INTRODUCTION

South Africa's democracy has brought changes to the lives of all South African citizens, specifically with the focus on improving the living conditions of its citizens and job creation in the country. Since 1994 many policies were drawn to target poverty and unemployment. It is acknowledged that such policies have brought change to the country; however the implementation process of such policies is still questionable evidence. The agricultural sector is one of the sectors that also play a major role in socio-economic development which could be used to address these anomalies. Currently, the sector provides employment to people who are disadvantaged in rural areas and has a significant contribution to the country's Gross Domestic Products (GDP) of about 7 % in the year 2007 and there is an increase of 3 % contribution in the year 2013 which then amount to 10% of the current GDP.

The Department of Agriculture also estimates that the agricultural sector accounts for 29.9 % of jobs in rural areas. Despite its major role and contribution, the sector is also faced with many critical challenges similar to mining and energy development sectors. The increasing number of social unrest in the sector is a current example whereby during 2012-2013 financial year, the agricultural sector experienced a major financial losses after the farm workers went on a minimum wage strike in the Western Cape Province. Therefore, this paper seeks to investigate the causes of labour unrest in the agricultural sector of South Africa. In addressing this, the paper undertakes a critique of the Basic Conditions of Employment Act of 1997 which considers employees' rights (in the economy and in particular the agricultural sector). Furthermore the study discusses the causes of labour unrest in the agricultural sector and the effects of labour unrest in the sector. This is necessary because employers must protect and respect the rights of their employees and that will also help in reducing the increasing number of labour protests that are emerging in the country daily.

THE SOUTH AFRICAN LABOUR LAWS AND EMPLOYEES RIGHTS

South Africa is listed among first countries of the world to regulate the employees' rights in the informal sector. This is also recognised by the *Constitution of the Republic of South Africa*, 1996 section 23, which states that every employee has the right to fair labour practices, including the right to strike, form and join a union, participate in their activities and programmes and bargain collectively (Fourie, 2008:126). The *Basic Conditions of Employment Act of 1997* is one of the legislation that regulates the concern of the workers in the country. Fourie, (2008) however noted that framework is not fair because it does not protect all workers, but discriminates against part-time employees. The exclusion of employees based on this legislation brings about the issue of unfair treatment in the labour industry.

Thus the *Employment Equity Act of 1998* was also established to promote equal opportunity and fair labour practice. Therefore the issue of unfair labour practice in the sector is not expected because the country has created democratic labour laws. This includes issues of rights to fair minimum wages, leaves and normal working hours. It is therefore arguable that the application or lack of appropriate application of adopted labour laws might create labour unrest. Therefore for the purpose of efficiency and effectiveness in the labour sector, all labour laws must be applied fairly to employees so as to decrease the number of labour protest in the country. The major issues addressed by the, *Basic Conditions of Employment Act, 1997*, includes among others the issue of work times and rules based on ordinary hours of work and overtime and the issue of children and forced labour South Africa does have good labour laws, but employers in the agricultural sector and in other sectors continue to abuse employees and children. According to Fourie (2008:112) employers faced with globalisation challenges, employ unskilled and non-standard workers to address their demands and avoid the country's labour laws. It is therefore evident that there is no protection of the employees in the agricultural sector and thus contributes to the unrest situations.

AGRICULTURE AND THE SOUTH AFRICAN ECONOMY

South African agricultural sector plays a major role in job creation and also contributes to the country's Gross Domestic Products (GDP) of almost 10 % in the year 2012 (Department of Agriculture, Forestry and Fisheries, 2012). Sandrey, Punt, Jensen & Vink (2011:8) acknowledge that South Africa's agricultural sector represents and promotes a good trade relationship with other countries and create employment to the rural people. Agriculture is seen as a sector that contributes to government's initiative to create jobs to all the South African citizens. Despite its contribution to employment the sector also trade products to foreign countries.

South Africa is a well-known country that specialises in agricultural products such as wheat, seeds, sugar cane, grain and vegetables such as tomatoes, potatoes, maize and fruits such as tomatoes, grapes and to other countries. An economic review of South African agriculture estimated that the agricultural products for the financial year 2012 amounted to 161 131 million which is higher than the previous years. Oettle, Fakir, Wentze, Gidding & Whiteside (1998:21) emphasise that despite job creation agriculture also plays a major role in poverty alleviation by distributing its products to the livelihoods of the poorest households in rural areas. Bryerlee, De Janvry & Sadoule (2010: 1) indicated that the agricultural sector should be recognised as the important role player in development. The agricultural projects in most rural areas are example of development in the agricultural sector.

Agricultural products such as vegetables produced through poverty alleviation projects in rural areas helps to meet food security of the local people, because South Africa still has rural people who cannot access the agricultural markets. If people cannot access their nearest markets they can buy vegetables from the agricultural projects within their community at a reasonable selling price without going to the market. However Nel & Davies (1999: 4) indicated that the agricultural sectors are likely to be faced with environmental constraints such as lack of rainfall and drought which contributes to the collapse of agricultural projects. This will then force the local communities to go to their nearest market to access agricultural products. However that will also cause financial constraints to the local communities, because they are to spend more money on transport going to the market to access agricultural products.

AGRICULTURE AND EMPLOYMENT IN SOUTH AFRICA

According to Sandrey *et.al* (2011: 16) it is difficult to estimate South Africa's level of employment in the agricultural sector. But it is believed that the sector employed more than millions of job opportunities in the past four decades. The seasonal and casual workers in South Africa contribute to such difficulties. However

the Department of Agriculture, Forestry & Fisheries (2010) estimates that the number of workers employed in the agricultural sector decreased from 1.1 million in the year 1992 to 914 000 in the year 1996 of which 67% were employed on permanent basis. The agricultural sector has generated employment in most rural areas in the country through the agricultural projects. The type of employment in the sector however differs. There are permanent and casual/seasonal workers within the agricultural sector. The reason behind this is that farmers are looking at saving their market costs by employing casual workers who would perform other duties seasonally rather than employing more people within the sector. However Sandrey *et.al*, (2011:17) argue that agricultural sectors employ casual/seasonal workers because they harvest quarterly.

Based on the global demand challenges, the agricultural sectors employ more casual workers rather than permanent workers. It is argued that most employers prefer to employ the unskilled labours to meet their demands for costs saving purposes. This includes both African men and women from rural areas. Cohen & Moodley (2012:321) emphasise that the problem in this case is that, most employers take advantage of the people who are unskilled in rural areas and pay them a low wages. Simbi & Aliber (2000:10) emphasise that, there should be good application of labour laws such as *Basic Conditions of Employment Act* and the *Labour Relations Act* that regulates and protect the employees' rights within the sector. Again these acts must also intend to improve the working conditions and regulate the workers working hours. Therefore failure to apply these labour laws contributes to labour unrest problems in the agricultural sector. The working conditions of workers in the agricultural sector should be equal irrespective of their type of employment. Therefore there should be a fair treatment of workers in order to resolve conflict between the employers and employees.

CAUSES OF LABOUR UNREST IN THE AGRICULTURAL SECTOR

The issue of social labour unrest in the agricultural sector is considered to be a challenge in the labour market. Employees can only strike if there are social labour issues that affect them in their working environment and other strike can either be influenced by political and economic issues. Most farmworkers in South Africa specifically in the Western Cape Province work very hard, to produce food and wine for all South African citizens and to other foreign countries, but yet they are forced to work under unsafe and unhealthy conditions. Hence Fourie (2008:112) argue that the working conditions of the workers in South Africa have drastically changed because of the legislation that governs all workers in the country. They live without electricity, without toilet facilities and they also live on poverty wages of R150 per day, however the *Constitution of the Republic of South Africa*, 1996 states that people are entitled to safe and clean environment. It is therefore evident that workers' rights in the agricultural sector are violated in a way that can be compared to slavery at times. Particularly social labour issues such as minimum wages and the conditions of workers in the agricultural sector contribute to labour unrest in the South African agricultural sector. Employers in the agricultural sector and other sectors such as the mining industry should consider wage issues when looking for employment of both permanent and casual workers. Vink & Kristen (1999:208) argue that the introduction of advanced resources such as tractors in the agricultural sector caused a decline in structural shifts of employees. Employees were then employed either on permanent, casual or on seasonal basis. The introduction of new advanced machinery such as tractors in the agricultural sector also contribute to unemployment in the country, because machinery can only be operated by skilled labours in the sector and that will lead to unskilled labourers losing their jobs. That will have an effect on failed job creation by the private sector. The most important issue to consider in terms of wages is that employers should conform to the legislated minimum wage of employees based on their type of employment to eliminate the increasing number of labour unrest within their sectors.

The issue of minimum wage increase in the agricultural sector will impact negatively to employment crisis. The minimum wage may exclude casual workers, because the main reason for the sector to employ casual workers is to meet their demands by employing people who are unskilled and pay them low wages. The most disadvantaged will be women, because the Department of Agriculture (2010) estimate that women employees in the agricultural are unskilled and they are likely to be vulnerable because they have no education at all and they accept any working condition for a living and to provide for their children. Hence Cohen & Moodley (2012:323) adds that women should be paid minimum wage salary to decrease feminisation poverty. Most women-headed households will also be affected because they are said to be prone to poverty than men-headed households. Stanwix (2013: 2) further acknowledge that the introduction of minimum wage policy in the post-apartheid South Africa aimed at improving the living conditions of the workers; however that will vary according to the types of employment in the sector and employees' working

hours. There is a need for effective enforcement of minimum wage policy to resolve labour unrest problems between farmers and farm-workers in the sector.

The Department of Agriculture in South Africa estimated that blacks are likely to lose their jobs because of their poor level of education and lack of adequate skills to perform other duties. It is also estimated that almost 41 % of workers in the agricultural sector are men and they have no formal education while 40 % of women in the sector have no education at all. Therefore employers employ African workers based on their poor level of understanding and ignore the legislative frameworks that govern employees and their rights. Thus the realities of the Western Cape minimum wage farmers strike have shown that workers are poorly paid in the South African agricultural sector. However all workers need a living wage to improve their personal living conditions while on the other hand sustaining their impoverished households.

THE EFFECTS OF LABOUR UNREST IN SOUTH AFRICA

It is argued that poor payment of labourers in the agricultural sector and other sectors such as mining industry contributes to the emergence of labour unrest in the country. The issue of minimum wage increase in the agricultural sector could lead to possible effects that will affect the employees. *Firstly* possible effect is loss of employment. When employers consider an increase of wages, they will be forced to retrench other employees to meet the requested increase of wages. However retrenchment in the agricultural sector can be in different ways, it can either be pushed by the environmental constraints such as lack heavy rainfall and drought can contribute to poor harvest in the agricultural sector. Hence Nel & Davies (1999:2) acknowledge that floods can also cause an impact on the agricultural produce and result to job loss.

Secondly, labour unrest can cause possible economic decline in the country. The agricultural sector is the sector that produces vegetables, fruits seeds and trade with other foreign countries (Sandrey *et.al*, 2011:23). Most people depend on the agricultural products for their business and due to labour unrest they are likely to have challenges in receiving the agricultural products for their business. According to Nel & Davies (1999:2) almost half of Africa's population looks at agriculture as a means of living. Therefore labour unrest in the agricultural sector can cause market constraints and that will affect the lives of the South African citizens as they look at agriculture for a living. Again loss of employment due to unrest situations can also affect the life of the South African because there will be an increase number of unemployment in the country. Therefore it is evident that labour unrest also contributed to the current number of unemployment in the country and Cohen and Moodley (2012: 324) estimated that in 2012 South Africa had 68% unemployment rate.

Thirdly, labour unrest also contributes to profit and loss of employers in the agricultural sector. Since agriculture is regarded as the foundation of developing economies, there is also a need to consider the profit that it generates in improving the well-being of both the farmers and the farmworkers. The more profit they lose, the more they will retrench more workers in incurring the profit they lose during the unrest. However one can argue that a loss in the agricultural sector is not only caused by labour unrest. The other contributor of profit losses in the sector can be a decline of agricultural share of GDP in the country. South Africa is said to be one of the largest producer of vegetables and fruit seeds in the world. Therefore when the agricultural exports decline, the agricultural imports will remain stable and that will contribute to a decline in the GDP of the country. Lack of adequate resources such as machinery and quality water supply in most agricultural farmers also lead to a decline in the sector. Farmers rely mostly on adequate infrastructure to produce quality products to exports markets. Infrastructure such as roads and transport also play a vital role in agriculture, therefore poor infrastructure provision can also contribute to a loss in the agricultural sector because farmers use sea and air and land transport as their means of transportation. Hence Khadaroo and Seetanah (2007:2) argue that good infrastructure condition may open a pool for other investors to operate successfully, while poor infrastructure will increase costs to firms. Thus despite the labour unrest, poor infrastructure can also contribute to losses in the sector.

The *last* effect is cost recovery of the employers. It is well known that most employees when they strike they vandalise the existing infrastructure and the available resources during their reactions. This means that the employers will firstly have to look at the financial losses they suffered during the striking process and therefore employers will be forced to retrench other employees as a means of cost recovery. However Nel & Davies (1999: 4) argue that the agricultural sector can also experience possible natural disasters such as floods that will have a negative impact on their export products but causes of damage during farmers strike can also contribute to the export constraints of crops, vegetables, fruits and seeds.

CONCLUSION

This paper argued that South Africa has good legislative frameworks such as the Basic Conditions of Employment Act of 1997, Employment Equity Act of 1998 and the Labour Relations Act of 1996 that regulates the concern of the employees in the country. The acts were established to ensure fair labour practice in the country. Despite the existence of this legislative frameworks labour unrest in South Africa is still continuing and the employees' rights are still violated by the employers specifically in the agricultural sectors. And the agricultural sector plays a potential role in development by promoting growth and reducing poverty in most African countries whose economies are based on agriculture. It also supports livelihoods activities in most rural areas and it does provide employment to the poorest people in the country. It is therefore evident that South Africa's initiative to ensure good labour practice still remains a critical challenge as it does contribute to the increasing number of unemployment in the country. The current increasing number of unemployment and inequality in South Africa are considered by the government as the most salient economic problems facing the country. Thus South Africa should focus more on improving those existing frameworks that regulates the concern of employees and ensure proper implementation of those policies to resolve labour unrest not only in the agricultural sector but also in other sectors in the country. South Africa should look at the agricultural sector as a means to end poverty, because it does generate employment than other sectors in the economy through its linkages with other economic sectors in the country.

REFERENCES

- Bryerlee, D. De Janvry, A. & Sadoulet, E. 2010. Agriculture for Development: Toward a New Paradigm. *Annual Review of Resource and Economics*, 1: 15-31.
- Cohen, T. & Moodley, L. 2012. Achieving "Decent Work" in South Africa. *P.E.R Journal*, 15(2):320-344.
- Department of Agriculture, Forestry & Fisheries. 2010. Estimate of the Contribution of the Agriculture Sector to Employment in South African Economy. Pretoria: Government Printer.
- Fourie, E.S. 2008. Non-Standard Workers: The South African Context, International Law and Regulations by the European, *P.E.R Journal*, 11(4):110-152.
- Khadaroo, J. & Seetanah, B. 2007. Transport Infrastructure and Tourism Development. *Annals of Tourism Research*, 34(4):1021-1032.
- Nel, E. & Davies, J. 1999. Farming the odds: an examination of the challenges facing farming and rural development in the Eastern Cape province of South Africa. *Applied Geography*, 19: 253-274.
- Republic of South Africa. 1997. *Basic Conditions of Employment Act*. Pretoria: Government Printer.
- Republic of South Africa. 1996. *Constitution of the Republic of South Africa*. Pretoria: Government Printer.
- Republic of South Africa. 1998. *Employment Equity Act*. Pretoria: Government Printer.
- Republic of South Africa. 1996. *Labour Relations Act*. Pretoria: Government Printer.
- Sandrey, R. Punt, C. Jensen, H.G & Vink, N. 2011. Agricultural Trade and Employment in South Africa. OECD Trade Policy Working Paper: OECD Publishing.
- Simbi, T and Aliber, M. 2000. The Agricultural Employment Crisis in South Africa. Paper presented at the TIPS Policy Forum. Muldersdrift.
- Stanwix, B. 2013. Minimum wages and compliance in South African Agriculture. Available online www.econ3x3.org
- Vink, N. & Kristen, J.F. 1999. A descriptive analysis of employment trends in South Africa. *Agrekon*, 32(2): 204-228.

REINFORCING ACCOUNTABILITY IN THE SOUTH AFRICAN PUBLIC SERVICE

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ABSTRACT

The Constitution of the Republic of South Africa of 1996 provides for the values and principles guiding public administration in the country. It stipulates in section 195 that public administration must be governed by the democratic values and principles as enshrined in the Constitution. One of the principles is that of an accountable public administration. Accountability is one of the major concerns of governance in public administration in South Africa which become one of the dominant concerns of governance because in the absence of accountability, unethical conduct finds a fertile ground to thrive. The legislative institutions play a crucial role in reinforcing and entrenching the culture of accountability in South Africa in line with section 43 of the Constitution of 1996. The purpose of this paper is to describe how the reinforcing of accountability mechanism in the legislative authorities could strengthen the management of public service. In order to address this, this paper considers the accountability model in South Africa and further uses some evidence from the literature which has argued that in spite of the crucial role that legislative institutions play in reinforcing and entrenching the culture of accountability, it is still a major challenge in the South African public service. This paper further examines the exercise of the legislative oversight over the public service in order to identify challenges facing the legislative institutions in reinforcing accountability in the South African public service. The paper concludes by proposing strategies for dealing with the challenges that these institutions face, in order to enhance their role in cultivating the culture of accountability in South Africa.

INTRODUCTION

There has been a considerable interest, among policy makers, members of civil society and academics from across various academic disciplines to study the oversight role of the legislature (Pelizzo & Stapenhurst, 2006; Nsingo, 2007). Public institutions operate within political environments. For this reason, Thornhill (2005) argues that the representative nature of democracy requires that political representatives, who are elected by the electorate, to make decisions on behalf of the members of the society. Accountability is one of the salient features of a democracy. Consequently, accountability of public officials, both elected political representatives and appointed professional officials, is among the central concerns of governance in a modern society. Hence, it is often argued that accountability deficit leads to poor governance thereby undermining the provision of public services. It is within this context that the paper attempts to make a contribution regarding the notion of accountability with a view of how this can be strengthened in the South African public service. To realise this objective, the paper analyses the oversight role of the legislature in reinforcing the culture of accountability. The paper commences with the conceptualisation of the notion of accountability, the oversight role of the legislative institutions as well as the challenges that these institutions encounters when they exercise their oversight functions. The paper recognises undoubtedly that the legislative institutions in South Africa face numerous and monumental challenges relating to their oversight functions. Among these challenges are capacity constraints and the complex politics-power play inherent in the South African public service. The paper concludes that any attempt of reinforcing accountability in the public service, should be centred on the creation of active and autonomous legislative institutions capable of effectively exercising their oversight role over the executive.

CONCEPTUALISING ACCOUNTABILITY

The notion of accountability became the subject of considerable attention in post-apartheid South Africa. Kalema (2007) argues that in spite of its popularity, the concept is still poorly understood and ineffectively

applied in South Africa and indeed in many countries throughout the world. The term accountability is used to imply the obligation to answer for a responsibility that has been conferred to a subordinate by a superior (Van Zyl, 1994: 6). This view is shared by Kalema (2007) who defines the concept of accountability to refer to obligations on part of government officials to answer for the discharge of the responsibilities entrusted to them by those who are authorised to scrutinise them. Public officials, both political office bearers and appointed officials, are considered to be accountable to the extent that they are largely required for their actions (Sindane 2009: 495). This obligation applies not only to political office bearers, namely ministers, deputy ministers as well as members of the executive councils (MECs) respectively at national levels and provincial sphere of government. It is also applicable to professional officials, from accounting officers (Director Generals at the national sphere of government and Heads of Department's at a provincial sphere of government) to employees at lowest levels in the public service. The concept of the public service in the context of this paper is used narrowly to refer to government departments at the national sphere of government as well as the provincial departments in provincial sphere of government. This clarification is essential because it delineates the context and scope of this paper. To this end, readers are advised not to use the term to include public institutions in local sphere of government although these may be of some relevance.

South African Legislative Sector (2012), accountability as the hallmark of modern democratic governance. Democracy remains clichéd if those in power cannot be held accountable in public for their acts or omissions, for their decisions, their expenditure or policies. South African Legislative Sector (2012) describes the functions of accountability as follows

- To enhance the integrity of public governance in order to safeguard government against corruption, nepotism, abuse of power and other forms of inappropriate behaviour.
- As an institutional arrangement, to effect democratic control.
- To improve performance, this will foster institutional learning and service delivery.
- In regard to transparency, responsiveness and answerability, to assure public confidence in government and bridge the gap between the governed and the government and ensure public confidence in government and
- To enable the public to judge the performance of the government by the government, giving account in public

The above functions are essential in the context of this article as they serve the purpose providing a thorough clarification regarding the meaning of the term accountability in terms of its functions as it applies to the South African public service. These functions describe the nature and purpose of accountability. The former describe how the notion ought to be applied while the latter deals with the question of the objective of such application. These functions should be read concurrently with the various definitions of the concept of accountability as provided for in this paper in order to gather a thorough understanding of the concept. The section that follows explains the oversight role of the legislative institutions in South Africa. This is important because it serves to explain oversight mechanism through which, the legislative institutions are able to hold the executive (in the context of this paper, the national and provincial government departments) accountable for the performance of functions assigned to them in terms of the constitution in a manner that satisfies the interest of the members of the public.

THE OVERSIGHT ROLE OF THE LEGISLATIVE INSTITUTIONS

The Constitution of Republic of South Africa 1996, spells out the three spheres of government as national, provincial and local (Black, Calitz & Steenkamp, 2008; Kahn, Madue & Kalema, 2011). It further assigns to each of the three spheres of government certain powers and functions. Democratic governments, throughout the world, have legislatures that act as supreme institutions of social representatives (Nsingo, 2007). The most salient feature of the democratic system of governance is that government is answerable to elected political representatives in legislative institutions for the performance of its functions. The surest way to hold government accountable is to ensure that those who are entrusted by the society with the societal resources remain accountable to the legislative institutions, which are in turn accountable to the electorate. Nsingo (2007) further explains that in South Africa, legislative institutions are made up of representatives of people collectively known as Members of Parliament (MPs) at the national sphere of government and Members of provincial Legislature (MPL's) at the provincial sphere of government. The process through which the legislative institutions hold the executive accountable is referred to as oversight. Oversight is one of the major functions of the activities of modern legislatures throughout the world (Fashagba, 2009). Manzetti & Morgenstern (2000: 132) explain that "the concept of oversight is based upon the notion that while

government is necessary for democracy to prosper in an orderly fashion, its institutions and people who staff them must be accountable for their actions". Oversight refers to the exercise of constitutional powers of the legislature to check or control the exercise of constitutional powers of the executive arm of government and more specifically to check or control the exercise of the executive powers in order to make it accountable and responsible to the electorate. The development of "active and autonomous legislative institutions" (Olson, 2004) is the foremost prerequisite for effective and efficient exercise of the oversight functions of legislative institutions. The concept of oversight contains many aspects which include political, administrative, financial, ethical, legal and strategic elements. South African Legislative Sector (2012) describes the oversight functions of the legislative institutions in the South African public service as follows:

- To detect and prevent abuse, arbitrary behaviour or illegal and unconstitutional conduct on the part of the government and public agencies. At the core of this function is the protection of the rights and liberties of citizens.
- To hold the government to account in respect of how the taxpayers' money is used. It detects waste within the machinery of government and public agencies. Thus it can improve the efficiency, economy and effectiveness of government operations.
- Provincial Legislatures are actually delivered. This function includes monitoring the achievement of goals set by legislation and the government's own programmes.
- To improve the transparency of government operations and enhance public trust in the government, which is itself a condition for effective policy delivery.

Democratic government puts more emphasis on the oversight role of the legislative institutions in the promotion and protection of public interests. One of the Parliaments' roles is to exercise oversight over the executive (Ahmed & Khan, 1995: 573). In South African public service, oversight is the mandate of both the Parliament and Provincial Legislatures. Legislative institutions exercise an oversight role over the public service by holding it accountable for the performance of its service delivery functions (February, 2006). This oversight role entails the informal and formal, watchful, strategic and structured scrutiny exercised by legislatures in respect of the implementation of laws, the application of the budget, and the strict observance of statutes guiding the functions of public institutions in line with the Constitution of the Republic of South Africa 1996. The oversight role of the legislative institutions is premised on the idea that the legislature as a law making body can, through such laws, create administrative agencies. These administrative agencies will in turn be assigned certain functions and responsibilities through such promulgated laws. In practice, this entails overseeing the effective management of government departments by individual members of the relevant executive authority in pursuit of improved service delivery for the achievement of a better quality of life for all people. To this end, it can be argued that the effectiveness with which the legislative institutions execute their roles serve as the crucial component for the achievement of government functions.

At a national sphere of government, Parliament is vested with the legislative powers. The composition of Parliament in South Africa is such that it consists of two houses namely, the National Assembly and the National Council of Provinces. To effectively discharge its oversight responsibilities, Parliament (both house) created parliamentary committees. Committees of the legislative institutions in South Africa execute their functions as intermediary bodies between community members and the legislative institutions. Committees in the National Assembly are called the portfolio committees and those in the NCOP are called select committees. The portfolio committees are portfolio based while the select committees are cluster based. The fundamental difference between these two broad categories of parliamentary committees is that portfolio committees are reflective of the various portfolios in the national government whereas the select committees are established to deal with shared areas of interest in clusters of government. There are about 34 national government departments. There are also corresponding portfolio committees that have been established to oversee each of these departments with the exception of the Presidency, which by the way has got two departments namely the Monitoring and Evaluation and National Planning Commission. So in practice, this means that while there are parliamentary portfolio committees that have been established with the express purpose of strengthening the oversight capacity of the National Assembly, the absence of the parliamentary committee, make it difficult if not impossible to hold the presidency as government institution accountable for the performance of its functions. In addition to these categories of parliamentary committees, there are joint committees, ad hoc committees and joint standing committees as well as specialised committees. There are various institutions that have been created in terms of the Constitution to support the legislative institutions in performing their oversight responsibilities. In the context of the South African public service, these institutions include but not restricted to the office of the Public Protector, office of the Auditor General and the Public Service Commission. These institutions support the legislative institutions in executing their oversight roles in different ways. In spite of the crucial

role that legislative institutions play in enhancing accountability, these institutions faces numerous challenges when undertaking their oversight functions.

CHALLENGES OF LEGISLATIVE OVERSIGHT IN SOUTH AFRICA

The major problem in regard to the oversight role of the legislative institutions is often framed in conventional principal-agent terms (Franchino & Hoyland, 2008). According to Masehela, Mamogale & Makhado (2012: 346), Public Administration discourse in South Africa shows that the principal-agent theory is used to characterise the relationship between the elected political principals and the agency officials. Masehela *et al.* (2012: 346-347) further argues that according to this theory, “political principals are perceived to be very powerful people with authority and power to influence public policy making process and direction, oversee and monitor the activities of government and also to sanction the behaviour of self-interested agency officials”. The source of this enormous power and authority result from the influential positions they hold either in their political parties or in government. This politics-power play introduces another dimension relating to the challenges faced by legislative institutions in performing their oversight responsibilities over the executive. For example, in South Africa, the State president is also the head or president of the ruling party. Majority of members of cabinet (in which the executive authority is vested) occupy highly influential positions in the National Executive Committee (NEC) of the ruling party. The NEC as the highest decision making body between conferences, consists of senior members of the ANC. A great majority of Members of Parliament (MPs) who are from within the ranks of the ruling party are mostly junior to those in the executive. As the result, they are most likely to be lenient or submissive to the whims of their political masters or seniors. Any act of independence on their part may risk their future deployment (job security) because in South Africa, the electoral system does not allow for the direct election of MPs by the electorate. These MPs are to a large extent seen to be implementing the mandate or instructions from party bosses than from members of the public. They are beholden to the authority of party bosses majority of whom are members of the cabinet.

At a provincial level, the legislative authority is vested within the provincial legislatures in terms of section 104 (1) of the Constitution of the Republic of South Africa. There is a Provincial legislature established for each of the nine (9) provinces of South Africa. The composition of these provincial legislatures is different from one province to another because they do not have the same number of seats for MPLs. In terms of the legislative requirements, the composition of a provincial legislature must consist of at least minimum of 30 and the maximum of 80 members. Such a determination is made up by the Independent Electoral Commission (IEC) based on the province’s segment of the national common voters roll (Republic of South Africa 1996). In the same way that Parliament plays an oversight role on the cabinet (executive) at the national sphere of government, the Provincial Legislatures are also expected to exercise an oversight role over the provincial executive. Similarly, they have subcommittees that have been established in congruent to the number of provincial departments. The roles of these committees are not different from those of the parliamentary portfolio committees at the national sphere of government. These committees (parliamentary committees or more specifically portfolio committees and standing committees and the committees of the provincial legislature) have got powers to summon Ministers and Director Generals (DGs) as accounting officers of national departments and Members of the Executive Council (MECs) and Heads of provincial departments (HoDs) as accounting officers of the provincial departments, to account on any matter pertaining to their functions.

Through all these various committees as described above, legislative institutions are able to effectively carry out their functions. This therefore means that the extent to which legislative institutions in the public service (Parliament and Provincial legislatures) carry out their functions depends primarily on the efficiency and effectiveness with which these committees carry out their functions. Whereas the parliamentary committees are regarded as engine rooms of the legislative institutions, for the simple reason that they conduct their operations on behalf of such institutions, it is worth noting that their ability to carry out their functions is constrained by numerous shortcomings. These include, but not restricted to, the following: capacity constraints and complex politics-power plays. The former can be attributed to inexperience and inadequate training of committee members while the latter refers to inability of MPs and MPLs to hold their party political superiors in the executive accountable. This politics-power play often times than not result in the interference, wittingly or unwittingly, of the legislative functions by the executive or the ruling party. As a result of these shortcomings, the legislative institutions in South Africa are to a certain extent incapable of effectively and efficiently performing their oversight roles as a legislative

requirement. This according to Schneier (2004: 202), result in the conflation and blending of the executive and legislative powers and functions making it difficult to trace and locate the legislative powers. This is a major weakness which might cripple the country's democratic system in the long run because it systematically weakens the ability of the legislative institutions to execute their duties without hindrance.

CONCLUSION

The purpose of this paper was to demonstrate that the reinforcement of accountability could be achieved through the strengthening of oversight role of legislative. To realise this objective, the paper has comprehensively conceptualised the notion of accountability, the oversight role of the legislative institutions as well as the challenges faced by these legislative institutions in executing their oversight functions in the South African public service. To this end, it can be argued that apart from its role as law making bodies, legislative institutions have a crucial role to play in reinforcing accountability through performing its oversight functions. The paper concludes that the efficiency and effectiveness with which the public service (national & provincial departments) performs their functions depend primarily on the capacity of the legislative institutions to execute their oversight roles. This could be achieved through the building of active and autonomous legislative institutions whose members are not being micro-managed by party bosses.

REFERENCES

- Ahmed, N., & Khan, S. 1995. The development of oversight in Bangladesh: A research note. *Legislative Studies Quarterly*, 20 (4), 577-583.
- Black, P., Calitz, A., & Steenkamp, T. 2011. *Public Economics*. Cape Town Oxford University Press
- Fashagba, J.,Y. 2009. Legislative oversight under the Nigerian Presidential system. *Journal of Legislative Studies*, 15 (4): 439-459.
- February, J., 2006. More than law making production line? Parliament and its oversight role. In Buhlungu S., Daniel, J., Southhall, R., & Lutchnan, J. *State of the nation: South Africa 2005-2006*. Pretoria: HSRC Press
- Franchino, F & Hoyland, B. 2008. Legislative Policymaking in Parliamentary Systems: Opportunities, Conflict and Institutional Constraints. Paper presented at the Inaugural Political Science and Political Economy (PSPE) Conference on "Designing Democratic Institutions", 13-14 May 2008, London School of Economics and Political Science.
- Kahn, S.B, Madue, S.M., & Kalema, R. 2011. *Intergovernmental relations in South Africa*. Pretoria. Van Schaik Publishers.
- Kalema, R. 2007. Public accountability and citizen demands: considerations for politicians and public official in South Africa. *Journal of Public Administration*, 42 (3), 250-259.
- Manzetti, L., & Morgenstern, S. 2000. Legislative oversight: interests and institutions in the United States and Argentina (<https://kellogg.nd.edu/faculty/research/pdfs/Manzetti.pdf> accessed on 17 March 2013).
- Masehela, K., Mamogale, M., J & Makhado, R. 2012. Should municipalities account to the legislature? Issues of Parliamentary oversight and service delivery, *Journal of Public Administration*, 47(1.1), 344-354
- Nsingo, S. 2007. Role players in public financial management. In Moeti, K. *Public Finance Fundamentals*. Cape Town: Juta & Co.
- Olson, D., M. 2004. Administrative power and oversight: the experiences of post-colonial legislatures. In Pelizzo, R & Stapenhurst R. *Legislature & Governance*. Washington DC: The World Bank.
- Schneier, E. 2004. Evolving patterns of Legislative oversight in Indonesia. In Pelizzo, R & Stapenhurst R. *Legislature & Governance*. Washington DC: The World Bank.

Pelizzo, R and Stapenhurst, R. 2006. "Democracy and Oversight" Research Collection School of Social Science Paper 130. (http://ink.library.smu.edu.sg/sooss_research/130 accessed on 17 March 2013).

Republic of South Africa 1996 Constitution. Pretoria: Government Printers.

Sindane, A.M .2009. Administrative culture, accountability and ethics: Gateway in search of best public service, *Journal of Public Administration*, 44 (3), 492-503.

South African Legislative Sector .2012. Oversight Model of the South African Legislative Sector. Cape Town: Legislative Sector Support.

Thornhill, C. 2005. A decade of transformation: An overview, *Journal of Public Administration*, 40 (4.1), 575-589.

Van Zyl, J.J.L. 1994. *The art of purpose-Directed management in Local government: Gateway to excellence*. Pretoria: Sigma Press.

MANAGEMENT OF EMPLOYEES' PERFORMANCE IN THE SOUTH AFRICAN PUBLIC SERVICE: A CASE OF THE DEPARTMENT OF ROADS AND TRANSPORT, LIMPOPO PROVINCE

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ABSTRACT

The public service is the primary service delivery arm of the developmental state. It is for this reason that the performance of the public service be continuously examined in order to ensure that its performance is optimal. Performance management as a tool for improving public service delivery in South Africa is a subject of immense debate. It has featured predominantly in public administration discourse. While it is meant to enhance the performance of the public service, its end results are viewed differently by those affected by its implementation. Literature on performance management in South Africa suggests that the system is inconsistently and erroneously applied to individual employees. There is a substantial literature on the subject performance management; however, there is no substantive performance culture within the South African Public Service. In fact, performance management is still a major challenge in the Republic of South Africa. This study therefore investigated the manner in which employees' performance is managed in the Limpopo Department of Roads and Transport in South Africa. Qualitative research methodologies were followed in collection and analysis of data in which interviews were held with employees on salary levels 4-12. One of the major findings of this research is that whilst there is acceptable understanding of the purpose of Performance Management System PMS, this has not been reflected in the actual implementation of the system. Lack of managerial commitment, poor understanding of the work plan, as well as the lack of resources to perform has been identified as the central challenges with regards to the successful implementation of PMS in the Limpopo department of Roads and Transport (LDRT).

INTRODUCTION

Countries throughout the world have since the 1980s been embarking on public sector management reforms. These reforms emanated from the fact that the traditional role and institutional character of the State has been questioned as the results of its inefficiencies. Thus, since the introduction of global public sector reforms, the public sector institutions have been under tremendous pressure to adopt private sector orientations in their quest to maximise efficiency. Most of the public sector reform programmes that have taken place in developing countries during the period 1980-1990 were introduced as part of the Structural Adjustment Programmes (SAPs) of the World Bank in the 1980s. However, most of the more recent reforms, under the influence of the New Public Management (NPM), have been driven by a combination of economic, social, political and technological factors, which have triggered the quest for efficiency and for ways to cut the cost of delivering public services. Since the early 1990s, performance management as an important element of public service reform has been gaining momentum throughout the world. According to Letsoalo (2007:3), performance culture dominated the public service in Europe, New Zealand and Australia during the 1990s. Anderson, Leech & Teicher (2004:2) argued that since the 1990s, Australian Public Service (APS) strived to become performance focused and one of the key components of this drive was to improve the performance of individual employees in their public institutions. McAdam, Hazlette & Casey (2005:261) state that prior to the introduction of a multi stakeholder and balanced scorecard approach as part of the reform agenda, government departments in the United Kingdom (UK) were subjected to a range of external peer reviews. The pitfalls of these reviews pointed to a need for public institutions to develop and apply a more integrated approach to performance management. The model of public sector reforms which emanated from a new public management approach theoretically formed the basis for the introduction of

performance management in the South African public sector. It has since become crucial for performance in the public service to be continuously examined in order to ensure that its performance is optimal. It is therefore not surprising that performance management as a system for improving public service delivery in South Africa is a subject of immense debate featuring predominantly in public administration discourse. While it is meant to enhance the performance of the public service, its end results are viewed differently by those affected by its implementation. It is within this context that study sought to investigate the implementation of performance management system in the South African public service. The study was guided by the following objectives:

- To investigate the extent of the implementation of PMS in the LDRT.
- To determine measures used to identify and manage poor performance.
- To determine measures used to identify and maintain satisfactory performance.
- To identify the challenges relating to management of employees' performance for employees on salary levels 4-12.
- To recommend solutions for improving the management of employees' performance through the implementation of PMS in the department.

THEORETICAL PERSPECTIVE OF PERFORMANCE MANAGEMENT

African public services should adopt NPM, which includes; performance- oriented civil. Performance management is one of the various NPM-inspired measures to address some of the accountability problems mentioned in the previous section. In pursuit of the goal of performance improvement, performance management advocates for the “empowerment” of managers (Economic Commission for Africa, 2003). The term ‘performance management’ is commonly used to describe a range of managerial activities designed to monitor, measure and adjust aspects of individual and organisational performance. It integrates management of performance of organisation with the management of individual performance. In the quest for efficiency and effectiveness in government, not only reforms were necessary, the adoption of private sector management techniques and practices was also advocated to deal with the problems associated with the old public administration. For example, private sector solutions were sought for public sector problems (Larbi, 1999:4). It was within this context that improved organisational performance became a consistent feature of the NPM model. Performance management in the public sector is the managerial activity necessary to promote well-performing organisations and service delivery. Performance management in an organisation has got the potential to enhance the effectiveness of public policy implementation but still it succeed only where it is effectively implemented and applied holistically. It is said that performance management is also expected to increase accountability because “clear and explicit managerial targets”, combined with “managerial autonomy and incentives to perform”, make it easier to establish the basis for managerial accountability and to achieve outputs (Hills and Gillespie, 1996). Performance management is a process concerned with the effectiveness of the individual employees, the team and the organisation. Williams (2002) & Manyaka & Sebola (2012) maintain that the purpose of performance management in organisations is to improve organisational effectiveness, motivate employees and improve training and development. It seeks to find ways to get the best performance from all and to motivate them to achieve organisational objectives (Foot & Hook, 1996). Holbeche (2005) concurs by stating that when a performance management system is working, it should enhance the overall performance of groups, individuals and the organisation and it should be able to help individual employees see how their own role contributes the organisational goals and success. Performance management provides the system and processes to plan work and set performance expectations (Limpopo Provincial Administration, 2004). It sets out to communicate the link between an organisational mission, strategic direction and the required employee performance. Letsoalo (2007) argued that the significance of performance management is to establish organisational culture in which the individual employees and groups within the organisation take full responsibility for continuous improvement of their performance for effective achievement of organisational goals. Performance management according the Public Service Regulations (2001) enhances organisational efficiency and effectiveness, accountability for the use of resources and achievement of results. From the foregoing, it can be argued that the purpose of performance management system is twofold namely: to develop and to reward. The former ensures that government through its employees operates effectively and efficiently by identifying and providing adequate training to those employees whose performance is below the expected standard, whilst the latter ensures that employees who perform well are satisfactorily rewarded in order to ensure that they maintain a high level of performance. Employees' performance in the South African public service is managed in accordance with the various components discussed below.

COMPONENTS OF PERFORMANCE MANAGEMENT

Performance management entails a strategic and integrated approach to delivering sustained success to the organisation by identifying performance of the people who work in them and by developing the capabilities of teams and individual contributions (Armstrong 2001; Manyaka & Sebola 2012). The following can be identified as the major components of performance management, namely: performance contracting or agreement; performance monitoring; review; feedback; appeal; annual performance evaluations and ratings (Armstrong and Murlis, 1998, Williams, 2002; and Visser, 2006; Manyaka & Sebola 2012).

Performance contracting or agreement: One of the aspects that need to receive more attention with regard to performance management is arguably, performance agreements or contracts of public officials at all levels within the institution (Armstrong, 1994; Visser, 2006). According to Larbi (1999), performance contracting is a written or negotiated agreement between government and managers in which quantifiable targets are explicitly specified for a given period and performance is measured against such targets at the end of that period. Performance plans, agreements or contracts serve as the basis upon which employee performance is measured, reviewed and evaluated, thus, it is highly imperative that it must always be informed by and drawn from directorate and departmental plans or scorecard (Limpopo Provincial Government, 2004).

Performance monitoring: Performance should be monitored and assessed on an on-going basis against performance goals (Meyer & Kirsten, 2005). Performance monitoring includes the gathering information about work activities and checking on the progress and quality of work (Williams, 2002). According to the Limpopo Provincial Government (2004), monitoring individual or team performance is crucial to ensure that employees work towards their set and desired strategic objectives and performance targets as stated in their business plans and instruments.

Performance review: According to Meyer & Kirsten (2005), performance review entails the assessment of employee's performance according to specific standards. Performance review is an essential element in performance management that requires some sort of performance measurement or at least monitoring performance and giving feedback to the jobholder (Williams, 2002). Effective performance management system typically has a number of frequent formal reviews of employees' performance (Holbeche, 2005). Performance review in Limpopo Provincial government departments is conducted through a process called Progress Review Discussions (PRDs). To this end, the three components of PRD's can be identified, namely: self-assessments, peer or managerial reviews and customer reviews (the Limpopo Provincial Government, 2004). Performance reviews provides a formal opportunity to discuss the overall performance results and these are vital to managing performance. The purpose of a progress review is to allow the supervisor or the line manager and the employee whose performance is under review, to discuss needed changes, revisions or additions to the performance and development plan, and to make plans, in the event that employees' performance is sufficient, the line manager must determine what the problems are, solicit the employees' perspective, suggest solutions and utilise appropriate coaching skills to allow the affected employees to improve their performance (Costello, 1994). Progress reviews provide regular and specific feedback to employees' and ensure follow-up so that the data can be used to inform better decision making about who is performing well as well as who should be promoted, trained and paid more.

Performance feedback: As soon as progress reviews or quarterly reviews have been completed, the results should be discussed with the employee. This process is called feedback. In performance management, feedback entails the provision of information to be presented to people on their performance, which helps them to understand how well they have performed and how effective their behaviour has been; with the aim of promoting this understanding so that appropriate actions can be taken (Armstrong, 2000). Feedback is a vital part of performance management process (Holbeche, 2005; Harvard Business Essentials, 2006). It is given to address competency gaps and poor performance, recognise good performance and revise performance goals (Meyer & Kirsten, 2005). Provision of feedback on employees' performance should be timely (Williams, 2002:154). Managers should continuously provide the employees with frank and honest feedback about their performance since it gives each party an opportunity to tell his or her side of the story and also to hear from the other (Harvard Business Essentials, 2006). According to Armstrong & Murlis (1998: 250), performance management system that relies on regular feedback and review allows the annual evaluations to be a lighter process and "no surprise" summary of achievements over the next year and the beginning of a new performance agreement or contract. It is important that feedback should be provided constructively, tactfully; honestly, respectfully and always maintain focus on performance (Meyer & Kirsten, 2005).

Performance appeal: Although it is a requirement that a system of performance management to be applied should be designed in consultation with the affected employees, individual employees should nevertheless be granted the opportunity to appeal against their performance (Cloete, 1985). There must be a procedure for dealing with complaints and grievances regarding employees' performance rating (Holbeche, 2005).

Annual performance evaluations: A fundamental requirement of personnel administration is that every worker or employee should be utilised to his fullest capacity and in order to meet this requirement, an evaluation of employees' performance must be undertaken continuously (Cloete, 1985). According to the Limpopo Provincial Government (2004), performance evaluation determines the overall level of performance of employees, teams, directorates or for that matter the whole department for the whole financial year. These evaluations are based on the assessment of stated objectives and related outputs for the entire year, usually at the end of the financial year. Performance evaluations amount to the summative evaluation of performance. According to Cloete (1985), performance evaluations aid managers to ensure that effectiveness of their subordinate, individually or as a group, remains accountable. Hence, it is through performance evaluation that line managers are able to differentiate between poor or unsatisfactory performance. Self-evaluation may serve a useful purpose. The utilisation of self-evaluation system does not only enable managers and supervisors to discover shortcomings in their own conduct, it could also lead to the legitimisation and acceptance by employees since the assessment process is a shared responsibility between subordinates and their supervisors and managers (Cloete, 1985). A rating is used to represent the performance of individual employees over time (Land & Farr, 1983). Performance rating is the process of scoring summative performance of individual staff members taking each key result area or required competence one at the time. It takes the combination of numerical scale of 1 to 5. This scale should be accompanied by narrative comments such as outstanding, commendable, marginal and unsatisfactory performance depending on performance scale of a staff member whose performance is under evaluation. Rating received as an outcome of the raters' evaluation of performance is likely to have financial implications for the ratee as well as the organisation. In the past, this process was manipulated and rating administered subjectively in order to benefit those employees who were too close to the raters or managers.

The analysis of each of these components of performance management should have no doubt in the minds of public managers that it boils down to sound management practices that should be applied as the matter of principle (Visser, 2006). Proper implementation of these components would surely yield enormous benefits for public institutions.

RESEARCH DESIGN AND METHODOLOGY

The study utilised the qualitative research design in order to investigate the management of employees' performance in the Limpopo Department of Roads and Transport. The qualitative research methodology was used in this study because it enabled the researcher to be fully involved throughout the entire research process, thereby making sure that all research questions are addressed accordingly. The qualitative research method allows an intense interaction between and participation by the researcher and research respondents. In order to enable the researcher to obtain a sample suitable for the study, the researcher used purposive sampling procedure to select the respondents. Purposive sampling procedure was chosen as the most suitable method of selecting research respondents because it is less complicated and more economical in terms of both time and budget. Semi-structured interviews in particular with employees of the LDRT were conducted. The interviewees were categorised into three main categories, namely; - Category A (which comprised of employees from salary level 4 to 7); Category B (which comprised of Managers and Deputy Managers i.e. employees from salary level 8 to 12 and Category C (Which comprised of employees on salary level 13). Data obtained from research respondents was summarised and categorised into key themes which are more useful in terms of providing a more detailed analysis of the research problem. The data was thereafter reduced into separate data points collected by the researcher into simplified statements that enabled the researcher to analyse the research problem.

PRESENTATION OF THE RESEARCH FINDINGS

Implementation of performance management system in the department: The research had revealed an uninspiring picture about how PMS is implemented in the department. Whilst there is an overall understanding of the purpose of PMS and what it should entail, this is not eventually reflected in the actual implementation of the system in the department.

Performance reviews: The research reveals that employees that were interviewed are of the view that performance reviews do not help them to improve their performance but serve as a source of their rewards at the end of the financial year. Quarterly reviews are not necessarily 'reviews' in the real sense of the word. In fact some employees view them as quarterly reports of their work. Employees in category A indicated that their supervisors do rarely, if ever, review their performance. Employees in category A indicated that their managers do not take responsibility and are not enthusiastic about reviewing the performance of their subordinates. The research revealed that most employees still do not regard self-assessments as the crucial component of PMS in the department. They indicated that in the event that they have rated their performance high, their supervisors reduce their ratings without justifying or providing reasons for doing so. It appears that the reason for reducing such reviews lies not so much on the fact that these employees do not deserve such ratings, but rather much on the inability of their supervisors to write motivation for such ratings as required by the provincial policy framework and the departmental procedure manual on PMS. One employee who was interviewed in this study argued that:-

“the reduction of our self-assessments scores without providing reasons for doing so shows that our managers do not value what we do and more so reflects lack of commitment on their part to objectively implement the PMS”.

The utilisation of self-evaluation system does not only enable managers and supervisors to discover shortcomings in their own conduct, it could also lead to the legitimisation and acceptance by employees since the assessment process is a shared responsibility between subordinates and their a supervisors and managers. The research has further revealed that *self-ratings* are not taken seriously in the department. Instead, supervisors prefer to give average ratings across the board. This tendency has got the potential to mask the root causes of poor performance in the department because if average is given to all employees irrespective of how they have actually performed; the poor performers will not be effectively identified and corrected. As it has been indicated in the literature review, managerial reviews are conducted by the most immediate supervisors of employees. PMS puts the responsibility on managers to communicate and work effectively with their employees in order to achieve organisational goals and objectives (Weiss and Hartie, 1997; Dixon, 2004). This responsibility emanates from the traditional assumption that the ratings of employees by their supervisors is the most realistic, objective and fair (Murthis and Jackson, 2000). These types of reviews are particularly appropriate where reward is linked to performance and where control and development are one of the aims (Marchington and Wilkinson, 2008). In the department, managerial reviews are conducted by employees in category B (supervisors and managers). Their reviews represent the formal and final review that serve as the basis for making decisions on whether or not to reward employee's performance. The research however reveals that most of the respondents in category A (operational staff members) expressed dissatisfaction with the manner in which reviews are conducted in the department. There is a tendency by some managers to apply a '*pass-one-pass-all*' approach when conducting performance reviews of their employees in the department. Some employees complained about doing reviews for their fellow colleagues because when they submit their individual reviews, their managers and/or supervisors tell them to submit with all employees. This tendency results in the late submission of the performance reviews.

Management of poor performance in the department: The research revealed that most managers do not confront poor performance in order to systematically address the root causes of the problem. Various variables have been identified as the contributing causes of poor performance. Issues such as the poor understanding, lack of resources to perform as well as lack of managerial commitment has been highlighted as the causes of poor performance in the department. It can be argued that poor understanding of the work plan by most employees emanates mostly from the '*cut and paste*' approach of the work plans of their supervisors'. Some employees indicated that their supervisors rejects or refuse to sign individual work plans which are not the same as theirs. Managers need to appreciate the fact that the work they perform will not necessarily be the same as the work to be performed by their subordinated.

Motivating employees to improve performance: Most employees have identified satisfactory performance as achieving more than what an employee has planned for. This implies that to successfully identify satisfactory performance, supervisors should compare the actual work done with the work plans of their employees. Every financial year, there will be those employees who perform well and those who do not. Consequently, similar strategies cannot be utilised to motivate these employees. Most of employees in category B: (Managers and supervisors), pointed out to the fact that it is difficult to motivate employees to perform well. One of the supervisors argued that:

“because there is no clear or ready-made solution for improving performance of those employees who perform below expected standards and targets, it therefore becomes difficult for managers to continuously motivate their employees to carry out their tasks with relative efficiency and effectiveness. The same can be said about the difficulties involved in maintaining the performance of those whose performance was outstanding”

Rewarding employee’s performance: Performance rewards are usually used with the express purpose of encouraging or motivating employees to continuously perform as expected. Many managers and their subordinates are of the opinion that the use of both intrinsic and extrinsic rewards has got positive effects on employee’s motivation. Whilst both these rewards are crucial for increasing individual performance levels, there is however visible evidence of poor linkage of these types of rewards in the Limpopo Department of Roads & Transport. This finding affirms Benfield and Kay’s argument that the difficulty faced by managers in determining the most appropriate and effective reward strategy for their organisation is not only highlighted in the academic literature but also in the realities of an organisational life (Benfield and Kay, 2008). All employees interviewed in this study agreed that extrinsic rewards or monetary rewards help to lubricate and encourage satisfactory performance. Some employees have however expressed concerns with regards to the delays in as far as the payment of performance bonuses is concerned. One employee in Category A stated that:-

“We receive our performance bonuses when it is no longer necessary. It mostly takes about a year without us getting our performance bonuses. Monetary rewards exist to motivate us to continuously put extra efforts in the execution of our responsibilities. However, the delays with regards to the PMS bonuses undermine the basic reason for the existence of such rewards”

Although this is a legitimate concern, it also points out to the weaknesses of relying on monetary rewards for motivating high levels of performance in an organisation. It serves as an important pointer to the fact that extrinsic rewards are not ‘entirely’ successful in terms of motivating employee’s performance.

Challenges of implementing performance management system: The following challenges have been identified in as far as the implementation of PMS in the department is concerned: - late submission of quarterly reports; lack of managerial commitment; little or no feedback on performance; pass-one-pass all approach as well as the poor understanding of the work plan.

RECOMMENDATIONS

Implementation of performance management system: The research had revealed an uninspiring picture about how performance management system is implemented in the LDRT. This can partly be seen in the manner in which performance reviews are conducted as discussed earlier. Accordingly, the researcher recommends that it should be the responsibility of the top management of the department to institutionalise performance culture for effective implementation PMS in the department. For this reason, they need to continuously, hold by-monthly or monthly meetings with their sub-ordinates that focuses squarely on performance management. This will go a long way in timeously identifying the performance gaps and implementation of the corrective action. This will assist line managers in understanding the various components of PMS and such an understanding might help them to effectively implement the system.

Integration of intrinsic and extrinsic rewards: It has been highlighted as part of the findings of the study that when used separately, both extrinsic and intrinsic rewards are not entirely successful in terms of motivating employees to improve on their substandard performance or to maintain satisfactory performance. The use of these two methods separately yields unsustainable short-term benefits. It is against this background that the research recommends for the integration of both intrinsic and extrinsic reward approaches. The institutionalisation of these two types of approaches in the department is envisaged to play a significant role in terms of timeously communicating the message that the employee’s performance is highly valued and appreciated by those responsible for managing or overseeing employee’s performance. It is against this background that the integration of intrinsic and extrinsic of rewards methodologies in the department is crucial and inevitable.

Quarterly reviews: Quarterly performance reviews are extremely important for managing employee’s performance in an organisation. Managers and supervisors need to take them seriously. These

reviews are tools which they can use to monitor whether employees perform well according to their performance plan.

Responsibility of managers in performance management system: It is generally accepted that managers and supervisors play a crucial role in directing employee efforts for improved performance. It is worth noting that the research has revealed that some supervisors and managers are still unable to differentiate between employees who perform well and those whose performance is far below performance targets and standards. This is reflected in their continued application of *pass-one-pass-all approach* when rating the performance of their subordinates. This can also be attributed to the apparent reality that some managers do not view management of employees' performance as the crucial component of their daily responsibilities. Management of performance is in most cases relegated to the bottom of the priorities of the managers and supervisors. It is for this reason that the researcher recommends for the prioritisation of PMS as a central responsibilities of managers. This should be rooted in the understanding that an effectively implemented PMS can serve as a very critical tool for monitoring and understanding employees' individual performance. For this to happen, managers should be compelled to convene a meeting, at least once a month, to reflect and discuss performance of their employees. These meetings could assist managers and supervisors to timeously identify poor performers and agreeing on a corrective action to be employed as soon as possible.

CONCLUSION

The study has revealed an uninspiring picture in terms of how PMS is implemented in the South African public service. Lack of managerial commitment for managing employees' performance, lack of resources to perform, lack submission of quarterly reports were identified as the major challenges related to the implementation of PMS in the LDRT. In many countries across the globe, performance management was introduced essentially to modernize, transform and accelerate public service delivery. To this end, performance management as an important component of public sector reform can be understood as an integrated strategy which seeks to improve the performance of organisations and the individuals in them. As a management tool performance management system provides a means to recognise and reward good performance as well as to manage any identified performance gaps. Performance management is increasingly seen as a tool for managing results rather than inputs. Thus, it should be understood as a process which allows everyone to get the sense of what is the relationship between their directorates, sub-directorates, divisions, teams, individual and the whole organisational goals and objectives. To this end, it is important that management of employees' performance be closely scrutinised in order to point out any inconsistencies and errors associated with the implementation of the system.

REFERENCES

- Anderson, E., Leech, B., & Teicher, J. 2004. *Performance Management in the Australian Public Service*. Working Paper 75/04. Monash University.
- Armstrong, M. 2001. *Performance Management: Key strategies and practical guidelines*. 2nd Edition. London: Kogan Page.
- Armstrong, M. 2000. *Performance Management: Key Strategies and Practical guidelines*, 2nd Edition. London: Kogan Page.
- Armstrong, M., & Murlis .1986. *Reward Management*. London: Institute of Personnel Management.
- Benfield, P., & Kay, R. 2008. *Introduction to Human Resource Management*. New York: Oxford University Press.
- Cloete, J.J.N. 1985. *Personnel Administration*. Pretoria: Van Schaik (Pty) Ltd
- Costello, S.J. 1994. *Effective Performance Management*. New York: Irwin
- Dixon, R. 2004. *The Management Task*. 3rd Edition. New York: Butterworth-Heinemann

- Foot, M., & Hook, C. 1996. *Introducing Human Resource Management*. New York: Longman Publishing.
- Harrison, R. 1993. *Human Resource Management: Issues and Strategies*. New York: Addison-Wesley.
- Harvard Business Essential. 2006. *Performance Management: Measure and Improve the effectiveness of your employees. Your mentor and guide to doing business effectively*. Boston: Harvard Business School Press.
- Holbeche, L. 2005. *The High Performance Organisation: Creating dynamic stability and sustainable success*. London: Butterworth-Heinemann.
- Hope, K.R. 2002. *From Crisis to Renewal: Development Policy Management in Africa*. Leiden: Brill Publishers
- Land, F.J., & Farr, J.L. 1983. *The Measurement of Work Performance: Methods, theory and applications*. New York: Academic Press Inc.
- Larbi, G. 1999. 'The New Public Management Approach and Crisis States' United Nations Research Institute for Social Development Discussion Paper, No. 112.
- Letsoalo, M.B. 2007. *An Evaluation of Performance in the Public Service*: Master's Dissertation, University of Johannesburg.
- Limpopo Provincial Government, 2004. Policy Framework on Performance Management System, Polokwane.
- Manyaka R.K & Sebola M.P 2012 Impact of performance management on service delivery in the South African public service. *Journal of Public Administration*, 47(1.1), 299-310.
- Marthis, R.L., & Jackson, J.H. 2000. *Human Resource Management*. Singapore: South Western College Publishing.
- McAdam, R., Ann- Hazlett S., & Casey, C. 2005. Performance Management in the UK Public Sector: Addressing Multiple Complexity. *International Journal of Public Sector Management*. Vol 18 (3): 256-273.
- Meyer, M., & Botha, E. (eds) 2000. *Organisation Development and Transformation in South Africa*. Durban: Butterworth Publishers
- Parker, S., & Ruiters, R. 2006. *Distributive and Procedural Justice: Towards Understanding fairness of Performance Appraisals*. Cape Town: University of Western Cape.
- Republic of South Africa: *The Public Service Regulation*, 2001. Pretoria: Government Printers.
- Visser, C.B. 2006. An Integrated Approach to Performance Management in the Public Sector: *Journal of Public Administration*, vol. 41(22): 408-421.
- Williams, R.S. 2002. *Managing Employee Performance: Design and Implementation in organizations*. London: South-Western Cengage learning.
- Werner, J.M., & DeSimone, R.L. (ed). 2006. *Human Resource Development: International Standards Edition*. 4th Edition. Thomson: South Western.
- Welman, C., Kruger, F., & Mitchell, B. 2005. *Research Methodology*. 3rd Edition. Cape Town: Oxford University Press.
- Weiss, T.B., & Hartle, F. 1997. *Reengineering Performance Management: Breakthrough in Achieving Strategy through People*. Florida: St Lucie Press

RURAL ECONOMIC DEVELOPMENT AND POVERTY ALLEVIATION THROUGH LAND REFORM IN SOUTH AFRICA

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ABSTRACT

Over the course of hundreds of years the indigenous people of South Africa have been the victims of land disposition. After the birth of the South African democracy, government prioritised land reform in the country to address these past injustices. Apart from attempting to distribute land fairly to all the people of the country through various land reform policies, land reform also aims to alleviate the extreme circumstances of poverty in which a large part of the population of South Africa lives, as a result of apartheid. This paper will make use of literature studies to discuss the very relevant issues surrounding rural economic development and poverty alleviation through land reform in South Africa, as well as make recommendations on how land reform can be implemented effectively.

INTRODUCTION

From as early as the early 1600^s the indigenous people of South Africa were the victims of land disposition through various methods. This was formalised with the passing of the Natives Land Act of 1913, which confined the indigenous people of the country to reserves, called homelands, in the marginalised areas of the country. Africans confined to these reserves had communal land tenure, which was administered by traditional leaders.

Through colonisation and disposition approximately 90% of the land surface became the property of the white minority, which led to the majority of the population of the country living in poverty, especially in the rural areas of South Africa and the homelands. It is estimated that more than 3.5 million people and their descendants have been victims of racially based dispossessions and forced removals during the years of segregation and apartheid. Close to 50% of the South African population lives in poverty, of which the majority is situated in rural areas. Land reform seeks to change this situation.

THE IMPACT OF THE CONSTITUTION ON LAND REFORM

After the death of apartheid and the first democratic elections in 1994, the ruling party, the African National Congress (ANC), made it a priority to bring about land reform in South Africa through various policies and programmes, as well as legislation. The Constitution of the Republic of South Africa (Act 108 of 1996) took effect on 4 February 1997 as the supreme law of the country (as stated in the Preamble and sections 1(c) and 2 of the Constitution).

The Preamble of the Constitution clearly states that it aims to heal the divisions of the country's past by establishing a society based on democratic values, social justice and fundamental human rights, as well as to improve the quality of life of all citizens and to free the potential of each person.

Chapter 2 of the Constitution contains the Bill of Rights which identifies the various rights the people of South Africa are entitled to, including both civil-political rights as well as socio-economic rights. The socio-

economic rights contained in Chapter 2 are justiciable and can therefore be enforced by the courts. Sections 25 and 26 of the Bill of Rights pertain directly to property rights and security of tenure. The sections read as follows:

“25. Property

1. *No one may be deprived of property except in terms of law of general application, and no law may permit arbitrary deprivation of property.*
2. *Property may be expropriated only in terms of law of general application*
 - a. *for a public purpose or in the public interest; and*
 - b. *subject to compensation, the amount of which and the time and manner of payment of which have either been agreed to by those affected or decided or approved by a court.*
3. *The amount of the compensation and the time and manner of payment must be just and equitable, reflecting an equitable balance between the public interest and the interests of those affected, having regard to all relevant circumstances, including*
 - a. *the current use of the property;*
 - b. *the history of the acquisition and use of the property;*
 - c. *the market value of the property;*
 - d. *the extent of direct state investment and subsidy in the acquisition and beneficial capital improvement of the property; and*
 - e. *the purpose of the expropriation.*
4. *For the purposes of this section*
 - a. *the public interest includes the nation's commitment to land reform, and to reforms to bring about equitable access to all South Africa's natural resources; and*
 - b. *property is not limited to land.*
5. *The state must take reasonable legislative and other measures, within its available resources, to foster conditions which enable citizens to gain access to land on an equitable basis.*
6. *A person or community whose tenure of land is legally insecure as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to tenure which is legally secure or to comparable redress.*
7. *A person or community dispossessed of property after 19 June 1913 as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to restitution of that property or to equitable redress.*
8. *No provision of this section may impede the state from taking legislative and other measures to achieve land, water and related reform, in order to redress the results of past racial discrimination, provided that any departure from the provisions of this section is in accordance with the provisions of section 36(1).*
9. *Parliament must enact the legislation referred to in subsection (6).*

26. Housing

1. *Everyone has the right to have access to adequate housing.*
2. *The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation of this right.*
3. *No one may be evicted from their home, or have their home demolished, without an order of court made after considering all the relevant circumstances. No legislation may permit arbitrary evictions.”*

It is clear from the above extract of s25 of the Constitution that South Africans who were previously disadvantaged by land disposition in terms of the Natives Land Act have the constitutional right to gain access to this disposed land, or to other forms of access to land, or financial compensation as equitable redress. This section further protects current land owners against arbitrary deprivation of their property and eviction.

LAND REFORM IN SOUTH AFRICA

To meet the obligation placed on them by the Constitution and their election promises, the ANC set themselves, as the national government, a target that by 2014 at least 30% of commercial agricultural land must be transferred to black owners through the implementation of land reform-legislation, -programmes and -policies, which amounts to 24.5 million hectares of land. These policies, programmes and statutes are based on three pillars: land restitution, land redistribution and land tenure reform.

Land Restitution

Land restitution aims to rectify the injustices of the disposition of land through the Native's Land Act. The Restitution of Land Act 22 of 1994 was implemented to afford victims, and their descendants, the opportunity to submit claims for the restitution of disposed land, to the Land Claims Commission before 31 December 1998. If land cannot be returned to the original owners, the Act makes provision for the provision of alternative land, or compensation to the claimants. This is an ongoing process as all claims received have not been finalised yet.

Land Redistribution

Land redistribution seeks to address the inequality that exists in land ownership in the country. The majority of land in South Africa is still owned by a minority of the population. The main purpose of land redistribution is to make land available to previously disadvantaged individuals and communities for agricultural production, settlement purposes and non-agricultural enterprises. Land redistribution can play a major role in alleviating the dire circumstances of poverty a large part of the South African community lives in, in both rural and urban areas through job creation in a country with a 25.2% unemployment rate.

Legislation implemented, as a result of s25(5) and s26(2) of the Constitution, to give effect to land redistribution includes the Provision of Land and Assistance Act 126 of 1993, the Housing Act 107 of 1997, the Land Reform Act 3 of 1996, the Development Facilitation Act 67 of 1995 and the Rental Housing Act 50 of 1999.

Land Tenure Reform

Land tenure reform addresses the security of occupiers against eviction, over houses and land where they stay or work, especially if these rights were previously undermined or prevented by apartheid policies. Different kinds of tenure fall under land tenure reform, namely private ownership over property, communal ownership and the tenure of lessees in terms of a lease agreement. The security of tenure is protected by various statutes, including the Land Reform (Labour Tenants) Act 3 of 1996, the Prevention of Illegal Eviction from and Unlawful Occupation of Land Act 19 of 1998 (PIE Act) and the Extension of Security and Tenure Act 62 of 1997.

IMPLEMENTATION OF LAND REFORM

The Department of Rural Development and Land Reform (DRDLR) was established to implement land reform in South Africa. The Department developed two programmes to achieve its goals, namely the Comprehensive Rural Development Programme (CRDP) and the Recapitalisation and Development Programme (RADP).

The vision of the CRDP is to create vibrant, equitable and sustainable rural communities which will improve food security of the poor and create business opportunities, especially for women, youth, people with disabilities and the elderly in rural areas. The Department wants to achieve this through coordinated and integrated broad-based agrarian transformation, increased rural development and the Land Redistribution for Agricultural Development Programme (LRAD). The LRAD-programme aims to provide previously disadvantaged individuals with improved opportunities to own agricultural land, to assist rural people in improving their living conditions and to ensure that available agricultural land is used more effectively. Even though the South African government has land reform as one of its fundamental policies, reality has necessitated a changed approach to this reform, because land reform in itself, as a means of equal distribution of land, does not deliver on food security. There exists an urgent need to measure land reform in terms of productivity, which will lead to increased food security, job creation and skills development amongst the envisioned beneficiaries of land reform.

The RADP is an initiative by the DRDLR to revive farms which are in distress to increase agricultural production, guarantee food security and job creation. The RADP also aims to assist small scale farmers to gradually become commercial farmers contributing to the country's economic development and food security, which will assist in the fight against poverty in the country. The RADP was established in

2010 after it was determined that 90% of farms, totaling 5.9 million hectares, which were redistributed to land reform beneficiaries had collapsed.

The Restitution of Lands Act, as amended, makes provision for the establishing of the Commission on the Restitution of Land Rights (CRLR). The role of the CRLR is to access claims of people claiming to be victims of land disposition after June 1913, and to provide redress to those victims. This redress can take the form of access to land, or financial compensation.

Rural Development and Land Reform Minister Gugile Nkwitini stated, during the debate on President Jacob Zuma's 2013-State of the Nation Address in Parliament, that 4 813 farms were redistributed to black people from 1994 to January 2013. This amounts to 4.123 million hectares, with 230 886 people benefitting from this process of which 50 440 were women, 32 563 young people and 674 disabled persons.

During the same debate the Minister stated that 1.443 million hectares of land, in the form of 4 001 land parcels, were acquired by government for the restitution of land rights at a cost of R10 billion. This restored land was utilised to settle 5 856 claims for land restitution. Minister Nkwitini also stated that R6 billion were spent by the Department on financial compensation to claimants who preferred monetary compensation instead of land. 71 292 claims were settled through the payment of financial compensation out of a total of 77 148 claims. The Minister explained the fact that the vast majority of claimants preferred financial compensation instead of land restoration, as a reflection of poverty and unemployment which plagues the country.

THE CURRENT LAND REFORM PROCESS

South Africans who were the victims of land disposition during the apartheid-era had the opportunity to claim for land restitution in terms of the Restitution of Land Rights Act from 1995 to 31 December 1998. The Act determined that these claims will be investigated if:

- (a) the claimant was dispossessed
 - of a right in land;
 - after 19 June 1913;
 - as a result of past racially discriminatory laws or practices;
- (b) the claimant was not paid just and equitable compensation; and
- (c) the claim was lodged not later than 31 December 1998.

Claims which met the above requirements are referred to the CRLR for investigation. The CRLR investigates the merits of each claim. If a claim is found to have merit the CRLR will then continue to mediate disputes and negotiate settlements arising from such claims. Following the provisions of s25 of the Constitution, these settlements are currently through the willing buyer, willing seller-model. In instances where no amicable settlement is possible, claims are referred to the Land Claims Court, a specialist court with the same power as the High Courts in South Africa. The role of the Land Claims Court is to determine compensation payable in respect of land owned upon expropriation or acquisition of such land, and to determine a person entitled to title in land. Appeals to the Land Claims Court may be lodged with the Supreme Court of Appeal or with the Constitutional Court.

The Restitution of Land Rights Act determines that a person will qualify for restitution if he/she falls within one of the following categories:

- people who lost a right in land as the result of racially based laws and practices since 1913;
- descendants of people who lost a right in land as the result of racially based laws and practices since 1913; and
- communities and deceased estates who lost a right in land as the result of racially based laws and practices since 1913.

Successful claimants are entitled to one of the following forms of restitution:

- restoration of the land from which claimants were dispossessed;
- provision of alternative land;
- payment of compensation;
- alternative relief including a combination of the above-mentioned, sharing of the land, or budgetary assistance such as services and infrastructure development; or
- priority access to state resources with regard to housing and land development programmes.

PROTECTION OF THE CURRENT PROPERTY OWNER

In terms of s25 and s26 of the Constitution the current owner of land is protected against arbitrary eviction from the land. This means that a situation of 'land grab', as was experienced in neighboring Zimbabwe, will not be tolerated in South Africa. Specific individuals also cannot be identified for land expropriation, as the Constitution clearly states that land reform can only take place through laws of general application. Even though some politicians propagate for the nationalization of land in the country, this is not a reality in the current South African context, as the Constitution needs to be amended for this policy to be legitimate. The South African government has also, on a number of occasions, stated that this is not part of their land reform plans.

THE REALITY OF LAND REFORM IN SOUTH AFRICA – THE IMPENJATHI COMMUNITY

In 2009, the DRDLR purchased a thriving 47 hectare banana farm for R3.2 million in KwaZulu-Natal, after the Impenjathi Community won their land claim. Prior to the purchase of the land, the farm produced more than 400 tons of bananas on an annual basis. 400 families benefited from this land claim, many of whom were unemployed.

Three years after the transfer of the farm has been completed, the land now lies in ruins, taken over by weeds and alien bushes. The irrigation system has been stolen, together with anything else of value on the farm. Even the farmhouse was stripped bare. A neighboring farm owner estimates that it will cost at least R2.3 million to rehabilitate the soil and to restore the farm to be productive once again.

The community blames the Department for the demise of the farm. They claim that they were led to believe that government will supply them with farming implements, such as tractors, and financial assistance to keep the farm operational. They have not received this promised assistance. Many of the families have given up hope, and abandoned the farm.

A spokesperson for DRDLR, Mtobeli Mxotwa, responded that the community should have approached the RADP for assistance, as this is the reason why this programme was established. Unfortunately the example of the Impenjathi Community is one of many with the same results.

CHALLENGES FACED BY THE LAND REFORM PROCESS

Even though the legislation, programmes and policies are in place, nearly half of the South African population still lives in poverty, as is evident in the above case study. The reason for this is that the land reform process in South Africa faces many challenges. The first issue which needs to be dealt with is the slow progress of land reform by the DRDLR. All claims should have been processed already by 2005. This deadline was extended to 2011, but it is still not finalised. Government also set themselves a deadline, as mentioned above, that 30% of all commercial land in South Africa should be transferred to black owners by 2014, but this has also not materialised, as only approximately 8% of the target has been met up to now. Land redistribution and –restitution is also a very lengthy and costly exercise.

The willing buyer, willing seller model used to obtain land to redistribute in terms of the land reform process, is also not successful. As a result of this model, the current owner oftentimes ask for a price above the market value, which results in unnecessary resources spent on acquiring farms.

Victims of land disposition which took place prior to 1913 were not allowed to submit land claims under the current land reform process. This excluded members of the Khoi and San, whose land were expropriated prior to the Natives Land Act.

Many of the beneficiaries of land forsake the idea of commercial farming in favour of subsistence farming, where the land is utilised to sustain the household and the immediate community. This is also the case where a community wins their land claim and decides to use the farm for communal farming instead of commercial farming. This leads to a decrease in food production, which in turn leads to a decrease in food security.

A lack of post-settlement support also impacts negatively on the land reform process. The fact that beneficiaries do not receive adequate financial and advisory support after receiving farms leads to a myriad of problems, of which the most severe one is the decline in productivity of the farms. The majority of new farm owners have never been in the position of land owners, and therefore does not have the experienced to run a successful commercial farm. The beneficiaries do not have the knowledge on how to establish a market for their produce, or how to enter existing markets on a competitive level.

The Settlement and Land Acquisition Grant (SLAG), currently available to beneficiaries of the land reform process, currently amounts to R16 000 per beneficiary household. This grant can be utilised to purchase moveable- or immovable property to assist with the running of the farm. This amount is not sufficient for emerging farmers to establish a successful farming enterprise.

The final challenge which hampers the success of the land reform process in South Africa is the lack of skills, and the subsequent skills development necessary, of the beneficiaries of successful land claims. Many beneficiaries have limited farming skills, but no, or very little, management and financial skills. If no-one is available to assist them in developing the necessary skills to manage commercial farms, it can never be successful.

RECOMMENDATIONS AND CONCLUSION

Land reform in South Africa is unarguably very necessary. People measure their self-worth on the basis of land ownership. Unfortunately the current process is flawed, which leads to a failure in reaching the goals of land reform, which is rural economic development and social uplifting of the most vulnerable members of our society, those people living in desperate circumstances of poverty. Although the South African government is making all the right noises, the reality is that the chosen road is leading to nowhere. Government needs to seriously reconsider the land reform process in the country.

The policy makers need to consider the following possible solution in an effort to redress the injustices of the past, especially the issue of land disposition during the apartheid-era:

- Available resources, such as human- and financial resources should be utilised more effectively. The stakeholders in government, especially those working for the Department of Rural Development and Land Reform, should work more efficiently to reach the targets set for them, and to process claims faster.
- Instead of paying above market value prices for land in terms of the willing buyer, willing seller-model, government must make the move to the 'just and equitable'-principle, as described in s25 of the Constitution. Although President Zuma alluded to this in his 2013-State of the Nation Address, this principle must be implemented as a matter of urgency. Current property owners must not be disadvantaged by the land reform process, but they should also not profit unnecessarily by asking exorbitant prices for the land just because government is a willing buyer.
- Land claim submissions should be opened for the victims of land disposition which took place prior to the implementation of the Natives Land Act of 1913.
- Government, through the DRDLR, must implement incentives for beneficiaries of land reform that continues with commercial farming. This will motivate the new land owners not to turn a successful enterprise into communal farming lots. This, in turn, will lead to higher food security at more affordable prices for all the people living in the country. The burden on a few people to provide food for the masses will also be alleviated. More food producers will also lead to more competitive food prices, which will benefit all consumers.
- The most important changes necessary to make land reform successful in South Africa is better post-settlement support from all stakeholders involved. This support includes government support in terms of:
 - Skills development and training in diverse areas, such as financial management, human resource management, marketing and obviously agricultural training.
 - Financial support to the beneficiaries of land reform in order to assist them in acquiring the necessary farming equipment needed to be successful on a commercial level.
 - Assisting in establishing a mentorship programme where willing mentors takes on the responsibility of assisting and guiding emerging farmers who are keen to make a success of this endeavour.
- The private sector also needs to take responsibility for making land reform work in the country. In many instances where the previous owner of the farm took the responsibility of acting as a mentor to the new owner, success was achieved. Acting as a mentor does not mean that the previous owner

takes on the responsibility of managing the farm to ensure its successful running, but it means that the mentor assists the new owner in running the farm by giving advice and guidance to the new farmer.

This paper is an introductory paper to a planned series on papers discussing the land reform process in South Africa in detail. Future papers will focus on the rights of the current property owner against the rights of victims of racially based land disposition, case studies to compare successful examples of land reform in the country against failures, as well as a comparative study on land reform in the international arena. Challenges faced by the land reform process with more detailed recommendations will be discussed in future papers as well.

REFERENCES

- African National Congress Land Reform Policy Document. 2012. Available at: http://www.anc.org.za/docs/discus/2012/landpolicyproposals_june2012g.pdf . Accessed on 15 May 2013
- Commission on Restitution of Land Rights. Information available at: http://www2.ruraldevelopment.gov.za/DLA-Internet/content/pages/Programmes_Restitution_Background.jsp . Accessed on 15 May 2013
- Department of Rural Development and Land Reform. Information available at: <http://www.dla.gov.za/>. Accessed on 15 May 2013
- Green paper on Land Reform, 2011. *Government Gazette*. No. 34656. Page 8-18
- Land claims in South Africa: progress report by Minister. Delivered on 7 February 2012. Available at: <http://www.pmg.org.za/report/20120207-department-rural-development-and-land-reform-special-investigative-un> . Accessed on 15 May 2013
- Land Reform: Progress, Challenges. Available at: <http://www.southafrica.info/business/economy/development/land-050612.htm>. Accessed on 15 May 2013
- Media statement by Minister in The Presidency for Performance Monitoring and Evaluation, Collins Chabane on the release of the Mid-Term Review for January – June 2012. Available at: <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=27960&tid=70728>. Accessed on 15 May 2013
- Mthethwa, B. 2013. The land-claim bonanza that turned to dust, *Sunday Times*, 12 May
- Parliamentary Debate on the State of the Nation Address. Available at: <http://www.southafrica.info/about/social/land-250213b.htm> . Accessed on 15 May 2013
- Rural Development and Land Reform. Available at: http://www.info.gov.za/aboutsa/rural_development.htm . Accessed on 15 May 2013
- State of the Nation Address by President Jacob Zuma delivered on 14 February 2013. Available at: <http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=33341&tid=94943>. Accessed on 15 May 2013
- Terblanché, S.E. (2011) Mentorship: A Key Success Factor in Sustainable Land Reform Projects in South Africa. *South African Journal of Agricultural Extension*. 39, 2011: 55-74
- The Constitution of the Republic of South Africa, Act 108 of 1996
- The Land Reform Act, Act 3 of 1996
- The Natives Land Act, Act 27 of 1913
- The Restitution of Land Act, Act 22 of 1994

POSITIONING GREECE AT THE INTERNATIONAL INNOVATION ENVIRONMENT: AN ANALYSIS BASED ON PATENT RECORDS

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ABSTRACT

Both theoretical evidence and empirical research argue that it is very important for a country to produce innovations, and more specific, innovations, which could be competitive at the international level. In this context this paper aims at studying the production of innovation in Greece by positioning and classifying it at the international innovation environment, comparing its innovation performance with the respective of other countries, based on the patent records issued at the three most important patent offices. Results aspire to provide an answer to a very important 'national' question: Is Greece a part of the international pattern of innovation production?

INTRODUCTION

Firm success, economic and technological leadership and growth at national and regional level, all rely more or less on innovation (Buswell, 1987; Malecki, 1991). Schumpeter (1934), with his "gales of creative destruction", gave a vivid description of the effects of the introduction and diffusion of major technological discoveries and inventions in industry and in the world economy and Romer (1994) emphasized on the role of innovation. Innovation can be found in processes, involve new products and affect larger or smaller organizations, as was pointed out by Porter (1990). Whatever its form and structure, innovation contributes to the competitiveness of a nation, which depends on how intensively its firms produce innovations.

Since the pioneering study on the nature of innovation in the 1970s of both Gibbons and Johnston (1974) and Freeman (1974), many research works have been presented regarding the analysis of innovation. Innovation is the output of the innovation process, being considered to be a highly systemic and complex process, which varies across industries, technologies and firm size. Particularly for firms, firms develop innovations responding to their market needs and technological challenges. All these factors make innovation difficult to be measured in complete and standardized ways. However, given the importance of innovation for national and firm wealth and welfare, the issue of measurement has become even more demanding. Nowadays, the literature on the measurement of innovation is abundant, every day being improved and increased, while has already succeeded in measuring innovation at firm, sector, regional and national level, as well as in combination to other economic and managerial variables and parameters. The main methodological conclusion that can be derived from the study of the literature on innovation measurement is that innovation can be measured only through its products and results and only indirectly, through the contribution of relative indicators. One very important category of indicators is patent indicators.

Therefore, producing innovations is very important, but even more important than that is the production of innovations, which could be competitive at the international level. A country which develops competitive innovations has a relative placement at the international innovation landscape, confirming this way its international position, reinforcing its leadership or good performance and putting the base for its further development. In this context the main objective of this paper is the study of the production of innovation in Greece but from a global perspective, through its positioning and classification at the international innovation environment. More analytically, the paper examines the Greek innovation performance in relation to the respective of other countries, based on patent records, which have been issued at the three most important patent offices, namely those of the EPO, the USPTO and the PCT procedure. The main research question that the analysis attempts to answer is the following: Is Greece a part of the international pattern of innovation production developing similar and compatible innovations to the

respective of other countries? Such an answer is of particularly national interest, for paper results could stimulate a wider discussion on the 'future' of the Greek competitiveness and on its agenda for innovation policy.

The rest of the paper is structured as follows: Section two discusses the theoretical and empirical framework of innovation in relation to both growth and patent records, which ends up to the construction of relevant indicators. Section three focuses on some methodological issues, while also describing the data. Section four presents the main empirical results based on the Greek case. Results focus on first locating technological fields of better absolute and relative performance, second highlighting the importance of new and emerging technological fields, such as those of environment, ICTs, biotechnology and nanotechnology and third positioning Greece at the international innovation landscape. Section five presents some concluding remarks, commenting on results, also integrating all the above in a policy context for further development.

THEORETICAL AND EMPIRICAL EVIDENCE

Joseph Schumpeter is considered to be the first economist to focus on innovation and its importance. According to his theory, innovation could involve a product (new one or a change in an existing), a process new to an industry, an opening to a new market or the development of new sources of supply for raw materials or other inputs and changes in industrial organization (OECD, 2009). Thus, innovation involves many and different elements and parameters and this means that its measurement is difficult due to the broad nature, scope and products of innovation activities. This is the reason that innovation can only be measured indirectly and mainly through the use of indicators.

Empirical research so far has proposed several indicators for the description and measurement of innovation. The most common among them are the indicators that derive from R&D, patents and new products (Basberg, 1987; Pavitt, 1988; Griliches, 1990; Archibugi, 1992). Data derived from patent documents has been extensively used in the measurement of innovation. Their advantages and disadvantages have been extensively analysed and discussed with arguments for their use, mainly focusing on their proximity to both inventive and innovative activities, their easy accessibility, high reliability, precise definition (Ernst, 2001; Debackere et al., 2002) and their easy elaboration and study at different levels and kinds of analysis. On the other hand arguments against their use point out the existence of other, and often, more effective mechanisms of protection, the differences in the relative legal procedures and patent regimes among countries and the issue of value. Particularly for the latter, patents have been accused for being treated equally, like all exerting the same economic and technological impact (Jaffe et al., 1998; Gay & Le Bas, 2005; Wang, 2007; Lee, 2009).

The bibliography on innovation measurement through patent data is abundant. Any reference to them could only be indicative and rather informative, simply showing that on the one hand the description and measurement of innovation concerns all countries, both developing and developed, and on the other hand that patent records have been used to investigate different aspects of innovation and related parameters at different levels of scale and aggregation. In fact the recorded research works could be classified into three groups: The first group of works studies different aspects of technology and innovation at national or sectoral level (e.g. environment, biotechnology, nanotechnology), but as a case study for one country. For example, the Norwegian technological changes were analysed through patents (Basberg, 1984). The Germany's long term evolution in chemistry was examined by patent statistics (Grupp et al., 2003). Patent growth was also used to evaluate the India's patent policy during 1979-2002 (Ganguli, 2004). The Taiwan's innovative potential between 1998- 2002 was reviewed based on the number of patents (Chen et al. 2005). The second group of works contains empirical research, which studies the performance of a small group of countries, usually the most developed (e.g. USA, Germany) or a group of countries that belong to a specific geographical area (e.g. Asian countries like Korea, China and Japan) or an administrative area (e.g. EU countries). For example, Characteristics of patent application have been used to compare France, Germany, and England in the arena of biotechnology (Ramani & Looze, 2002). The third group of works examines parameters and aspects of the total patent activity, such as patent trends (Frietsch et al., 2011; 2012), patent families (Dernis & Khan, 2004) or technological patent fields. In addition, looking at the research direction and focus of the above works most of them focus on aspects of national specialization (e.g. Andersson & Ejermo, 2008; Urraca, 2008), national or sectoral technological capability (e.g. Archibugi & Coco 2005, Ma et al. 2009) and national or sectoral strengths and weaknesses (e.g. Marinova & Mc Aleer, 2006).

The issue of positioning a country at the international level, however, can't be easily found in the existing bibliography. Thus, bibliography in this field is rather problematic, as it seems that there is no

research interest for this or very few research works have dealt with the study of countries, which aren't technologically advanced or for those which are slowly trying to catch up. Such a case could be the case of Greece. In this context this paper uses patent data as a proxy and measurement indicator of innovation in an attempt to first assess its performance in relation to the respective of other countries, second position the country at the international innovation environment and third group Greece with other European or World countries based on their total performance. Thus the analysis has a global perspective and for this purpose uses patent data records being protected abroad, taking into consideration both their positives and negatives. To the best of the knowledge, this paper is the first empirical work for Greece, especially studying this particular research field.

METHODOLOGY AND DATA ANALYSIS

The data for this study is based on patent records and documents. Methodology as well as data elaboration and analysis respond to the four main research aims, which are the following: First, locate important technological fields based on their absolute and relative performance, second highlight the importance of new and emerging technological fields, third positioning Greece at the international technological environment and forth classify and group the country with other countries of similar performance.

In this context patent data from an international patent office has been selected and collected. The rationale behind the construction of the patent database and its elaboration is the result of two methodological choices: First, it has been chosen to work with data from the three most important patent offices, namely those of the European Patent Office (EPO), the USA Patent Office (USPTO) and the International Patent office (PCT procedure). Second, it has been chosen to select patent grants, where it was possible, instead of using simple data of patent applications. Thus, patent grants owned by Greeks from the European and the USA Patent Office have been used while for the case of patents issued at the International Patent office (PCT procedure) patent applications have been collected, for only patent applications data from this patent office is available. In this context the patent database contains all Greek patents protected abroad (Greek external patent activity), which is based on patent grants for the case of both the European and the USA Patent Offices and patent applications for the part of the International Patent office (PCT procedure) for a total period of time of 13 years (1999-2011). In addition and in order to compare the Greek performance with the respective of other countries, as well as with the respective total at the European Union (27 members), OECD and World level (a total of 100 countries) patent data from the OECD patent database has also been used for the same period time and with the same methodological rationale.

Three more issues on methodology have to be clarified, the first referring to the chosen system of patent classification, the second relating to the level of aggregation and the third identifying the existence of new and emerging technical fields. Regarding the first methodological issue, the analysis is based on classifying patents according to the IPC system of patent classification, for it is application-based and thus facilitates both the identification of innovations and their assignment to different industrial sectors. Concerning the second methodological issue, results rely on the sub-class level of examination (630 subclasses in total), which is the only level that allows linking patents to one or more economic areas. This is due to the fact that there is no natural or perfect correspondence between technological classifications and economic areas. In relation to the third methodological issue, new and emerging technical fields are defined through the combination of two kinds of methods, the first examining all patent codes classified to each patent according to the international technology classification (IPC) (method-focus on the technological content of each patent), while the second scanning every patent and searching for related keywords (method-focus on keywords which 'read' both the short description and the interpretation of the technological content of each patent).

Based on the above methodological choices, a patent database has been constructed and elaborated especially for this study and according to the following steps: Step one, Greek patent data granted by both the European and the USA Patent Offices and applied to the International Patent office (PCT procedure) from 1999-2001 have been collected. Step two, total patent data granted by both the European and the USA Patent Offices and applied to the International Patent office (PCT procedure) at EU-27 (European Union- 27 members), OECD and World (100 countries in total) have also been collected for the same period of time. Step three, both Greek and total patent data have been classified to one or more technological subclasses and then related and corresponded to one or more industrial sectors, indicating this way its potential application or industrial use. Step four, countries are positioned at the international innovation landscape and then grouped according to the total international taxonomy based on their total performance, which is measured by their absolute and relative external patent activity at the three most important patent offices.

MAIN RESULTS

Results show that the total Greek external patent activity is very low accounting for 0.038% in Europe (European patent office), 0.009% at the respective of the USA and 0.056% at the International level (PCT procedure). Therefore Greece performs better internationally at application based-level, while its worst performance is recorded at the USA patent office. Table 1 presents some main statistical figures on the Greek external patent activity, as well as the country's positioning at the European, USA and international level. The last column of table 1 presents other countries with similar performance to Greece. Greece is classified between the 36th and the 43rd position according to the total technological taxonomy. In comparison to other countries (100 in total), Greece is grouped into the class '30-40' in both the European patent office and the PCT procedure and in '40-50' for the USA patent office. Greece presents a similar performance and thus can be grouped together with certain countries of the European Union, such as those of Cyprus, Czech Republic, Hungary, Poland, Portugal and Slovenia, some countries of the American geographical continent (e.g. Chile, Venezuela and Mexico), some East Asian countries (e.g. Hong Kong, Thailand, Chinese Taipei and Malaysia), with Turkey for both the European patent office and the USA and with some other very small countries (e.g. Bermuda, Cayman Islands and Liechtenstein). Combining the Greek performance at the three patent offices with the respective of the European Union (27 members), the OECD members and the World-100 countries (table 1, column three), it can be shown that the Greek best performance is found in the PCT patent procedure and as part of the European Union of 27 members share, following by the respective of the European patent office for the same group of countries. On the contrary the worst performance for Greece can be seen in the number of patents granted by the USA patent office for both Greece as a member of the OECD and the World-100 countries.

Focusing on new and emerging technical fields, Greece is classified between the 28th and 45th position. Its best position and, therefore, best relative performance is recorded in 'nanotechnology' based on its patent grants to the European patent office. However, this result may be of little importance, as the share of 'nanotechnology' is very low. Its worst position and, therefore, worst performance is recorded in 'biotechnology' based on its patent grants to the USA patent office. In general Greece performs better at the European Patent Office and the PCT procedure based on all technical fields and better in 'environment' than all other new and emerging technical fields. However, Greece's share in relation to the total EU-27 members, OECD-members and World (all countries) is higher in the PCT procedure, followed by the European and then the USA Patent Office. At the new and emerging technical fields' level, Greece performs better than the total of EU-27 members, OECD-members and World (all countries) in 'environment' and worse in 'ICT's' comparing its shares at the three patent procedures. Greece also performs better in 'biotechnology' in 2 out of 3 patent procedures, with the exception of the PCT one. As for the grouping of Greece with other countries, the same and all ready mentioned countries, as well as some other countries appear to have similar performance with Greece. The group of these some other countries includes Argentina, Singapore and Ukraine for the field 'environment', Iceland and Iran for the case of ICT's, Estonia for 'biotechnology' and three other countries for 'nanotechnology' (e.g. Korea, Romania and South Africa).

Table 1: Patent activity shares for Greece, EU- 27, OECD and World in different Patent Offices based on total technologies

Patent Office	Technologies	Greece	Countries with similar performance to Greece
Patent Grants to EPO	Total Technologies	229,333	Positions 30-40: Cayman Islands, Cyprus, Czech Republic, Hong Kong, Hungary, New Zealand, Poland, Portugal, Slovenia, Turkey
	%	0,038	
	Taxonomy	36	
	% EU- 27 members	0,078	
	% OECD	0,012	
	% World	0,038	
Patent Grants to USPTO	Total Technologies	170,475	Positions 40-50: Chile, Cyprus, Czech Republic, Kuwait, Poland, Portugal, Slovenia, Thailand, Turkey, Venezuela
	%	0,009	
	Taxonomy	43	
	% EU- 27 members	0,063	
	% OECD	0,009	
	% World	0,009	
Patent Applications	Total	749,495	Positions 30-40: Bermuda, Cayman

to PCT	%	0,056	Islands, Chinese Taipei, Czech Republic, Hungary, Liechtenstein, Malaysia, Mexico, Poland, Slovenia
	Taxonomy	38	
	% EU- 27 members	0,167	
	% OECD	0,040	
	% World	0,055	

Source: Own elaboration of OECD Patent database.

Table 2 presents the 15 most important technological fields for Greece at the three patent offices (columns 3-5) and or the mean from the three patent offices for each group of countries (e.g. column 6 presents the ranking of the group EU-27 members, after calculating the mean value based on the technological taxonomies of all three patent offices). The list of technological fields and the comparison between the rankings highlight the differences between Greece and all three groups of countries. The only absolute similarity between Greece and all three groups of countries in all patent offices is the technological field 'preparations for medical, dental or toilet purposes', which ranks between being first and second. This field is related to the industrial sector of 'pharmaceuticals'. On the contrary the different innovation direction of Greece is obvious, in which a large part of patents is concentrated in innovations relating to the agricultural sector and the construction industry. In addition there are technological fields that are much more important for Greece according to their placement in the total ranking than in the EU-27 members, OECD-members and World-100 (technological fields 1, 9, 10, 13, 21 and 22). Technological field 1 is related to the 'agricultural sector' (e.g. agricultural and forestry machinery), fields 9 and 10 are linked to 'machine tools' and 'fabricated metal products' respectively, while field 21 to 'non-metallic mineral products'. Contrary to the above pattern there are technological fields that are much more important internationally for all three groups of countries according to their placement in the total ranking than in Greece. These technological fields aren't placed high in the Greek taxonomy or they don't even appear in it. Among them the most important cases are the following: First 'semiconductor devices; electric solid state devices not otherwise provided for', second 'transmission of digital information' (e.g. telegraphic communication) and third 'pictorial communication (e.g. television). The second field is related to the sector of 'electricity'. The Greek performance in these fields is very low. In contradiction, Greece relatively outperforms in the fields of first 'containers for storage or transport of articles or materials', second 'horticulture; cultivation of vegetables, flowers, rice, fruit, vines, hops or seaweed; forestry; watering' and generally in all fields related to the construction industry (e.g. fixed or movable closures for openings in buildings, general building constructions; walls).

If technological fields based on patents at the three patent offices and for the above three groups of countries reveal the fields that dominate or will dominate in the word, then results show that 'chemicals (especially 'pharmaceuticals'), 'office machinery and computers', 'signal transmission and telecommunications' and 'motor vehicles' are and will be those dominant and important fields with shares of nearly 20%, 10%, 7.5% and 6.3% respectively. In addition to the above 'priority' technological fields, the OECD-members as well as the World-100 countries put also emphasis on 'medical equipment', while for the latter group of countries 'electronic components are also placed high in the overall taxonomy. The respective figures for Greece show both similarities to the above patterns and major differences: 'Chemicals' and its sub-sectors are very important, accounting for 21.7%, 'medical equipment' is 3rd, while 'basic chemicals' 5th. On the contrary both 'office machinery and computers' and 'signal transmission and telecommunications' are placed low, representing 3.4% and 1.4% respectively, with the latter technological field exhibiting one of the worst performances (20th in the total ranking). However, figures for Greece also show that two industrial sectors of application and use are very important, namely those of 'fabricated metal products' (10.4%) and 'rubber and plastic products' (6.3%), being placed at the 2nd and 3rd positions respectively. Generally and comparing Greece with all the three groups of countries along the three patent offices, the Greek shares are above all averages in 17 industrial sectors in total and among them in 'non-metallic mineral products' and 'agricultural and forestry machinery as well as in all already mentioned ones. Below all averages are Greek shares in 26 industrial sectors in total and among them in 'electronic components', 'special purpose machinery' and 'motor vehicles'. In addition, the performance of Greece is also much lower in all important and already mentioned technological fields and thus their related industrial sectors. Therefore, Greece comparatively performs better in rather 'traditional' technological fields, which are linked to 'traditional' industrial sectors and underperforms in those, which have been characterized as technologically advanced, such as those of the 'electricity', 'ICTs', 'nuclear energy' and 'nanotechnology'.

Table 2: The 15 most important Greek technological fields based on its external patent activity at the EPO, USPTO and the PCT procedure

	Main technological fields	Greece			EU-27 ¹	OECD ²	World (100) ³
		EPO	USPTO	PCT			
1	Horticulture; cultivations of vegetables, flowers, rice, fruit, vines, hops or seaweed; forestry; watering	4	20	7	>100	>100	>100
2	Foods, foodstuffs or non- alcoholic beverages, not covered elsewhere, preparation or treatment	11	34	31	44	34	47
3	Diagnosis; Surgery; Identification	3	4	5	9	6	6
4	Filters implantable into blood vessels; prostheses; devices providing patency, tubular structures of the body, fomentation, treatment or protection of eyes or ears; bandages	17	14	6	21	12	14
5	Preparations for medical, dental or toilet purposes	1	1	1	1	2	2
6	Devices for introducing media into or onto the body; devices for transducing body media or for taking media from the body;	10	27	12	26	20	23
7	Therapeutic activity of chemical compounds or medicinal preparations	8	9	11	9	22	22
8	Working or processing of sheet metal or metal tubes, rods or profiles without essentially removing material; Punching	24	13	58	48	59	53
9	Working or processing of wire	6	51	13	>100	>100	>100
10	Hand-held cutting tools	2	2	2	>100	>100	>100
11	Shaping or joining of plastics; Shaping of substances in a plastic state, in general; After treatment of the shaped products, e.g. repairing	7	33	26	13	21	22
12	Layered products, i.e. products built-up of strata of flat or non-flat	38	10	42	57	39	46
13	Ships or other vessels; Equipment for shipping	19	34	8	>100	33	>100
14	Containers for storage or transport or articles or materials; accessories, closures or fittings therefore; packaging elements; packages	12	3	4	12	15	15
15	Treatment of water, waste, sewage or sludge	13	41	9	80	72	89
16	Heterocyclic compounds	18	16	10	7	9	10
17	Macromolecular compounds obtained otherwise	30	12	22	31	34	34
18	Micro-organisms or enzymes; Propagating, preserving, or maintaining micro-organisms; Mutation or genetic engineering; Culture media	23	6	18	13	14	18
19	Measuring or testing processes involving enzymes or micro-organisms; Compositions or test papers; Processes of preparing such compositions; Condition-responsive control in microbiological or enzymological processes	14	45	21	55	44	59
20	General building constructions; Walls	15	11	23	52	27	>100
21	Structural elements; Building materials	28	8	41	>100	>100	>100
22	Cyclically operating valves for machines or engines	17	7	30	25	>100	>100
23	Investigating, analysing materials by determining their chemical- physical properties	5	17	3	4	5	6
24	Electric digital data processing	46	5	14	4	2	2

^{1,2,3} Mean of the total performance of the EU-27 members, OECD and the world at the three patent offices.

Source: Own elaboration of Patent data extracted from the EPO, USPTO and PCT

CONCLUSIONS

Relying on the theoretical and empirical evidence that innovation greatly contributes to corporate success, technological leadership and growth, this paper dealt with the Greek case analyzing its production of innovation, but from a more global perspective. More specifically the paper focuses on the Greek external patent activity and therefore on the Greek innovation which is protected abroad (offices: EPO, USPTO and the PCT). In this context the analysis and, therefore, results aimed at the following: First, present the Greek performance in comparison to other countries, both separately and as members of the groups of the EU-27, OECD and the World-100 countries. Second locate important technological fields, also highlighting the contribution of new and emerging technological fields in the overall pattern. Third, integrate all the above in an attempt to respond to a very significant issue of national interest: If and how Greece participates at the international production of innovation, developing similar and compatible innovations to the respective of other countries?

Results show that Greece participates at international production of innovation, being a member of this global innovation family, but with very low shares. Greece is classified in the same group with many small and more peripheral countries of the European continent (e.g. Portugal, Czech Republic, Poland, Slovenia), certain Latin American countries, with countries-islands well known as vacation destinations and with some emerging economies located in the Eastern Asian region. Results also show that the Greek production of innovation is concentrated in certain technological fields related to ‘medical preparations’, the ‘agricultural sector’, ‘basic and consumer goods’, ‘elements of transporting and package’, ‘machinery’ and different as well as complementary technologies of ‘building and construction’. The industrial sectors of application and use for the above fields are those of ‘chemicals’, ‘metal products’, ‘rubber-plastic products’ and ‘medical equipment’. The comparison between Greece and the three groups of countries show that Greece performs better in technological fields, which are linked to ‘traditional’ industrial activities. On the contrary the same comparison show that the performance of Greece is to a great extent inferior to the respective in all important technological fields at the international level, with the exception of ‘chemicals’ and ‘medical equipment’. Especially at fields related to electricity and more generally to ICTs this innovation gap is even larger.

Summarizing, a large part of the production of Greek innovation is directly or indirectly linked to the construction industry and the agricultural sector. Regarding the first case, the construction industry has a long tradition in Greece. It started to solve the growing problem of housing because of the needs arising after the two world wars and the wave of immigrants entering the country after 1922. It then became a policy, being promoted by specific measures and financial incentives, while also made use of some natural resources and national raw materials. During the last years and before the economic crisis the construction industry was the only sector to continuous and sustainable development in two axes, first public works and second housing (private residences), taking advantage of the European funds, the organization of the Olympic games and the increasing income of the Greek citizens, which has been almost entirely directed to a second residence, either permanent or for holiday. In relation to the second case, namely that of the agricultural sector, Greece has still one of highest agricultural shares compared to both the EU of 27 and the other south European countries, such as France, Italy and Spain. At the same time, among its most important exports are the agricultural products and those of food and beverages, which however is an industry closely related to the agricultural sector. Particularly for the food and beverage industry, it has to be mentioned that it is the most dynamic and high growth sector inside the Greek manufacturing sector. The 25% of the most profitable Greek companies are food and beverage companies. The local food and drink industry is one of the main contributors to the country’s GNP and —despite the crisis— is maintaining its strength. Finally, the case of chemicals is different, as most patents and innovations of this kind of products are mainly protected through a national or international patent office.

Therefore, Greek innovation and production have been developed in parallel paths, both expressing their traditional nature and orientation, with innovation serving production and production re-orientating innovation. The Greek external innovation pattern is different than the respective internal, which is recorded at the European and international level. If the aim of competitiveness is the main issue for Greece, then this aim can’t be achieved through this kind of mixture for innovation development. Results have highlighted the innovation gap that Greece has to cover or better the technological direction that Greece has to follow in order to become more competitive at the international level. Further and deeper research in this field could provide more answers on how Greece could structure it.

REFERENCES

- Andersson, M., & Ejeremo, O. (2008). Technology Specialization and the Magnitude and Quality of Exports. *Economics of Innovation and New Technology*, 17, 4, 355-375.
- Archibugi, A. (1992). Patenting as an Indicator of Technological Innovation: a Review. *Science and Public Policy*, 19, 6, 357-368.
- Archibugi, D., & Coco, A. (2005). Measuring Technological Capabilities at the Country Level: A Survey and a Menu for Choice. *Research Policy*, 34, 175–194.
- Basberg, B.L. (1984). Patent Statistics and the Measurement of Technological Change: An Assessment of the Norwegian Patent Data, 1840-1980. *World Patent Information*, 6, 4, 158-164.
- Basberg, B.L. (1987). Patents and the Measurement of Technological Change: a Survey of the Literature. *Research Policy*, 16, 131-141.
- Buswell, R.J. (1987). Research and Development and Regional Development: a Review, In: A. Gillespie (Ed.) *Technological Change and Regional Development*, London: Pion.
- Chen, D.Z., Chang, H.W., Huang, M.H., & Fu, F.C. (2005). Core Technologies and Key Industries in Taiwan from 1978 to 2002: A Perspective from Patent Analysis. *Scientometrics*, 64, 1, 31-53.
- Debackere, K., Verbeek, A., Luwel, M., & Zimmermann, E. (2002). Measuring Progress and Evolution in Science and Technology-II: The Multiple Uses of Technometric Indicators. *International Journal of Management Reviews*, 4, 213–231.
- Dernis, H. and Khan, M. (2004). Triadic Patent Methodology, STI Working Paper, No. 2004/2, Paris: OECD.
- Ernst, H. (2001). Patent Applications and Subsequent Changes of Performance: Evidence from Time-Series Cross-Section Analyses on the Firm Level. *Research Policy*, 30, 1, 143-157.
- Freeman, C. (1974). *The Economics of Industrial Innovation*, London: Pinter.
- Ganguli, P. (2004). Patents and Patent Information in 1979 and 2004: A Perspective from India. *World Patent Information*, 26, 61-62.
- Gay, C., & Le Bas, C. (2005). Uses Without too Many Abuses of Patent Citations or the Simple Economics of Patent Citations as a Measure of Value and Flows of Knowledge 1. *Economics of Innovation and New Technology*, 14, 333-338.
- Gibbons, M., & Johnston, R. (1974). The Roles of Science in Technological Innovation. *Research Policy*, 3, 220-242.
- Griliches, Z. (1990). Patent Statistics as Economic Indicators: A Survey. *Journal of Economic Literature*, 28, 4, 1661-1707.
- Gru, H., Lacasa, I.D., & Schmoch, U. (2003). Tracing Technological Change over Long Periods in Germany in Chemicals Using Patent Statistics, *Scientometrics*, 57, 2, 175-195.
- Jaffe, A.B., Fogarty, M.S., & Banks, B.A. (1998). Evidence from Patents and Patent Citations on the Impact of Nasa and Other Federal Labs on Commercial Innovation. *Journal of Industrial Economics*, 46, 2, 183-205.
- Lee, Y.G. (2009). What Affects a Patent's Value? An Analysis of Variables that Affect Technological, Direct Economic and Indirect Economic Value: An Exploratory Conceptual approach. *Scientometrics*, 79, 3, 623-633.

- Malecki, E.J. (1991). *Technology and Economic Development: the Dynamics of Local, Regional, and National Change*. New York: Longman Scientific & Technical.
- Ma, Z., Lee, Y., & Chen C.-F. P. (2009). Booming or Emerging? China's Technological Capability and International Collaboration in Patent Activities. *Technological Forecasting and Social Change*, 76, 787–796.
- Marinova, D., & Mc Aleer, M. (2006). Anti-pollution Technology Strengths Indicators: International Rankings. *Environmental Modelling & Software*, 21, 9, 1257-1263.
- OECD. (2009). *Patent Manual*, Paris: OECD.
- Pavitt, K. (1988). Uses and Abuses of Patent Statistics, In: A.G.J. Raan, (Ed.) *Handbook of Quantitative Studies of Science and Technology*, Amsterdam: North Holland.
- Porter, M. (1990). *The Competitive Advantage of Nations*, New York: The Free Press.
- Ramani, S.V., & Looze, M.A.D. (2002). Country-Specific Characteristics of Patent Applications in France, Germany and the UK in the Biotechnology Sectors. *Technology Analysis & Strategic Management*, 14, 4, 457-480.
- Romer, P.M. (1994). The origins of endogenous growth. *Journal of Economic Perspectives*, 8, 3–22.
- Scheu, M., Veefkind, V., Verbandt, Y., Molina, E., Absalom, R., & Förster, W. (2006). Mapping Nanotechnology Patents: The EPO Approach. *World Patent Information*, 28, 204-211.
- Schumpeter, J.A. (1934). *The theory of Economic Development*, Cambridge: Harvard University Press.
- Urraca, R.A. (2008). Persistence vs. Structural Change in the Technological Specialization of Brazil. *Economia e Sociedade*, 17, 3, 403-427.
- Wang, S. (2007). Factors to Evaluate a Patent in Addition to Citations. *Scientometrics*, 71, 509–522.

ITALY'S 2013 POLITICAL CRISIS: RESPONSE TO PROTEST ELECTIONS - BUSINESS, THE MARKETS AND EUROPE

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ABSTRACT

The Italian elections of February 2013 initially resulted in a stalemate. There was no winner. On the one hand the traditional parties suffered electorally while the social media protest group the Five Star Movement became Italy's largest party. Mario Monti who represented austerity received low support and Berlusconi feared by the markets clawed his way back. Most concerning with the elections was that it failed to produce a majority and forced Italy to seek out a "grand coalition". Surprisingly the finance, stock and bond markets were "understanding" and did not engage in frenzied actions or speculation against the Italian economy as had occurred in other Eurozone countries. Why was this the case and how will these markets treat an emergency "grand coalition?"

INTRODUCTION

The Italian elections of February 2013 provided an outcome few wished to see. It produced a political stalemate with little prospect of a stable majority government and an extended constitutional process delaying a partial solution for months. But it was also an election which sent powerful European and Italian messages on a rejection of austerity, questioning the Eurozone and even the concept of the European Union. For internal purposes it was also an election which denounced the traditional Italian cosy self serving political system most eloquently represented by the strong performance of the social media organisation Five Star Movement which in party terms received the biggest vote of any party. Moreover the election failed to provide a government provoking concern and raising alarm bells for the markets, bond investors, the stock markets and the business communities.

The election result was also a step into uncharted political waters providing even newer and complex scenarios as experienced in other Eurozone countries. Because Italy failed to achieve a clear and decisive outcome in the elections, and the hypothesis of going back to the polls was posed, many feared whether they were in government, in the markets or in Europe was the possibility of a "Greek Outcome". This eventuality was the chaotic time frame of having no decisive outcome from an election and having to return to the polls. In the time frame between these elections, as in Greece, markets can engage in economic punishment of the country, in raising interest of government debt financing, bond markets can become nervous, stock markets can start selling and credit ratings can be negatively assessed. This was a serious possibility, and with Italy a larger economy than Greece with more catastrophic consequences and domino effects on other Eurozone countries many were nervously waiting how events would unfold. Yet at the close of the political process which eventually brought about a "grand coalition" of centre-left and centre-right parties into the one government, surprisingly the markets, financial, bond and stock markets all watched on calmly and with little panic or nervousness. The new Italian government lead by Democratic Party Deputy Enrico Letta was inaugurated by the Italian President Giorgio Napolitano to embark on what is another unexplored option of a "grand coalition".

The aim of this paper is to understand why the response to the Italian election impasse, while certainly not one of satisfaction, at the same time did not create panic responses within Europe and most especially with the financial and stock markets. In late 2011 in the last dying days of Berlusconi's centre-right government, the

markets went into frenzied behaviour and pushed bond rates almost to default levels making the duration of the Berlusconi government untenable. As Reuters noted:

Italy, the euro zone's third largest economy, came close to disaster this week when yields on 10-year bonds soared over 7.6 per cent, the kind of level which forced Ireland, Portugal and Greece to seek international bailouts (Reuters 2013).

The markets de facto removed Berlusconi from government and the sense of instability and uncertainty created tremendous bouts of frenzy on the bond markets, stock and finance markets. Equally the Greek scenario of inconclusive elections in March 2012 followed by new elections in June 2012, the state of the Greek economy went from bad to worse. Yet the Italian two month interregnum between the election in late February and the arrival of a government in mid-April, seemed to have been experienced with calm, patience if not understanding. This paper explores the prospects of why the markets failed to respond in the “panicked” state in which it did in 2011 in Italy and elsewhere. Why have the bond rates remained substantially unchanged and why has Italy’s notorious state of non-government failed to raise the concern that it might have in the past.

The background to 2013 election impasse

The warnings of the 1990s about the Italian economy went unheeded within Italy. Entry into the Eurozone by Italy in 1998 under the Prodi government at the time was the product of a political decision rather than Italy fully qualifying for entry. Its public debt at the time of 120 per cent of GDP was twice the permitted level agreed as part of the Maastricht Criteria. According to one observer the then German Chancellor Kohl was of the view that there could be no Euro without Italy inside. In documents obtained by *Der Spiegel* it was revealed that “The decision to invite Rome to join was based almost exclusively on political considerations at the expense of economic criteria” (*The Times* 2012).

The 2000s saw Berlusconi and his centre-right coalition for the most part at the helm. From 2001-2006 and again 2008 until 2011 Berlusconi presided over a government which made little impact on the key negative economic indicators. Budget deficits on a number of occasions went beyond the minus three per cent band and most importantly public debt did not decrease. But these fragile economic indicators then faced the wrath of the global financial crisis in 2008 which only exacerbated a stalled economy. Italian economic growth never went beyond one percent growth level often placing Italy as one of the worst economic performers of the European Union. Berlusconi even tried to introduce tax cuts for the rich which made no sense to the Brussels pundits in the Commission who could not work out how the Italian government could cut government debt by bringing in less income! Brussels promptly put a stop to this economically suicidal budget. In response Berlusconi took his anger out at Europe by blaming the Euro which he argued was crippling Italy and Italian competitiveness and even hinted at a return to the Lira (Mascitelli 2010). Berlusconi’s governance also suffered from his judicial and personal distractions arising almost on a daily basis which created periods of debate and attention which were almost entirely focused on his persona. This was without doubt to the detriment of attention required for the Italian economy.

When the Berlusconi government in late 2011 was forced to reduce its growth forecast, and still commit to refinancing its huge public debt, the bond markets went into frenzy and the credit agencies subsequently downgraded Italy’s economy. The bond market struck like a tornado in late 2011, and Italy was defenceless as the bond rates escalated to default levels in a country “too big to fail, too big to bail”. The Berlusconi government lay prostrate before this financial tsunami as Berlusconi was forced to resign by the markets and his very presence in the government which sent shivers to investors, financial institutions and stock markets alike (Kington & Hooper 2011).

For the last six years the global economy has experienced ongoing economic crisis which continues in Europe and to lesser extent outside. Starting in 2008 with the Global Financial Crisis (GFC) triggered in the United States by out of control private debt, in Europe, it continued in 2010 with out of control public debt. The manifestation of this crisis was most savagely reflected and continues to do so, on a number of European economies within the European Union (EU) and members of the 17 member Eurozone group of countries. Those most affected by the sovereign debt concerns related to bond markets in particularly included Portugal, Ireland,

Spain, Greece and the comparative economic giant in Europe, Italy (PIIGS). Such were the concerns that emphasis also shifted to whether cohesion and integrity of the Eurozone was at stake.

The appointment of a technical government lead by Mario Monti in place of the Berlusconi government in late 2011 had the initial effect of seeking to calm the markets down. The Monti technical government was an emergency measure which was a holding operation and not a term solution. In addition Monti, as a former Commissioner of the European Union, was strongly appreciated as an Italian Euro supporter different from his predecessor. While the markets had calmed down and Monti's reputation outside Italy was appreciated, his austerity and oppressive economic program caused widespread dissatisfaction and economic *malais*. Monti's reforms, while they corrected certain features of the Italian economy were quite extreme and failed to produce the economic growth that were anticipated. The difficulties were such that even Berlusconi could ridicule Monti on his obsession with tax hikes and the halt on all forms of government spending. While the European Union felt that there was a safe pair of hands in Italy, this austerity approach could not be popularly accepted by the Italian electorate. The February 2013 election results saw the response of the Italian electorate towards austerity and the Monti movement which performed poorly and way below expectations (Wearden & Fletcher 2013).

The protest election results of 2013 and the initial view of the markets

As the election in Italy approached the markets had initially soared on hopes of a clear-cut outcome. This result would have created scope to push through reforms to revive Italy's recession-hit economy. The expectation coming from many observers was either a Democratic Party (PD) win in both the House and the Senate, or at worst a coalition of PD and the Monti movement. As the elections approach, so too did concern and especially noted was a comeback of Berlusconi's coalition which was inching back support right through to the eve of the election. When the results arrived indicating a majority for the PD in the House but an open contest in the senate many hearts sank. One market analyst commented:

"The market's initial reaction was too optimistic. We thought the PD would have won a majority in the lower house, and that's a given. But the Senate is still up in the air, region by region...If the PD gets 156 seats in the Senate but Monti in several regions doesn't win the minimum 8 per cent of the vote then even a PD-Monti alliance would have a very thin majority, something which the market would not like" (Jucca & Jewkes 2013).

It is common thinking that the markets normally dislike uncertainty. The Italian elections of 2013 certainly provided this undesired uncertainty. As one market analysts stated;
We simply don't know the state of play with Italian politics, and markets find sellers in times of instability. The President will take centre stage now and either form a 'grand coalition', although this seems unlikely. It has been speculated that Mr Bersani may look to team up with Beppe Grillo's Five Star movement (again unlikely), or ultimately fresh elections will be called down the track...This is a story of anti-austerity and one where most hadn't expected the anti-austerity/anti-European parties to do anywhere near as well as they have. The Italian voter has spoken out and this has thrown up political instability as perhaps the number one issue facing Europe in 2013 (Weston cited in Wearden & Fletcher 2013).

At the close of the elections, not only was there no clear winner, but Italy had just rejected austerity, possibly even Europe and saw the emergence of the protest movement Five Star Movement lead by Beppe Grillo. This had the makings of an outcome which would bring the markets crashing down with little mercy shown. No group emerged as a clear winner after the vote, which saw a populist anti-austerity party make a stunning debut.

How did the markets respond? Initially the Italian stock market in Milan fell 5 per cent on opening and state borrowing costs rose. At the close of trading on the day after the elections the FTSE 100 was down 1.34 per cent, Spain's Ibex off 3.2 per cent, Germany's Dax down 2.27 per cent and France's Cac reduced by 2.67 per cent. Banking stocks were particularly badly hit with the Royal Bank of Scotland and Barclays the biggest fallers on the FTSE 100, losing more than 4% of value. The euro also fell to an almost seven-week low against the dollar in Asia on fears about the eurozone debt crisis. While other European stock markets declined initially the Dow Jones opened positively on Wall Street following a 1.6 per cent loss immediately after the election (Skynews 2013).

New equilibriums in Italian politics

The Italian elections of 2013 in retrospect could be considered to have had the historical importance of the elections of 1994 when political parties of the post war generation like the Christian Democrats and the Italian Socialist Party almost disappeared over night. In 2013 we witnessed the centre-left, lead by the Democratic Party failing to achieve more than one third of the seats and almost neck and neck with Berlusconi's centre-right, People's Freedom party. The Northern League recorded its lowest vote in decades (four per cent) and Mario Monti's Civic Movement failed to acquire more than 10 per cent of the vote and unable to provide the support for a coalition even in the Senate. However the novelty of these elections was without doubt the bursting onto the political stage of the Five Star Movement which acquired 25 per cent of the national vote. It was in effect the largest single party in terms of electoral support. Lead by its well known celebrity Beppe Grillo, this social media movement began calling the shots on a fresh and new approach towards politics. While full of protest it was very short on proposals. It rejected being caught up in murky political dealings but at the same time refused to compromise on a range of political outcomes. Its policies, in so far as there were any, was for opposition to political trickery, party financing, and for underhanded deals between the traditional political parties. Economically while it had a five star approach towards sustainability, the environment and other areas, it was limited to mostly a rejection of the status quo rather than proposing sound ideas. It recommended a referendum on Italy's membership of the Euro (like the recent Cameron/UK referendum proposal on Britain's membership of the European Union), and it rejected the austerity policies and refused to be moved by the response of the markets.

This was an extremely fragmented and equally divided electorate which would inevitably make the formation of any clear and stable coalition difficult and almost impossible. As the negotiations began, the contending parties found themselves and not surprisingly unable to find working alliances. While the PD would have agreed to an alliance with the Monti movement, this combination was insufficient in number terms and therefore was not an option. The Five Star Movement had made clear it intended to not enter into any coalition or alliance with either side of politics. The scene was set for total paralysis. This was compounded by the closing mandate of the Italian Presidency of Giorgio Napolitano who constitutionally was not permitted to dissolve the parliament and whose position needed to be filled before any political solution could be found. The matters were becoming more complex and taking more time. World markets have been initially rocked after the Italian elections which were seen as crucial for the Eurozone and for not exacerbating the Eurozone woes. The Italian election was a clear deadlock and there seemed to be little light at the end of the tunnel. No group emerged as a clear winner after the vote, which even saw the emergence of a populist anti-austerity party make its stunning debut. The Italian stock market in Milan fell 5 per cent on opening and state borrowing costs rose as investors took fright at the political stalemate. Everyone looked at the markets to ask whether they would respond against Italy and the Italian economy?

Why the markets remained calm during the election paralysis?

Different from the economic response in late 2011 or with Greece in 2012, the markets, the bond rates and the financial institutions in the aftermath of the February 2013 elections, waited out the crisis and did not indulge in any speculation or destructive approach. Yet on the day after the elections there were only small downward shifts but none of the market reaction expected with such an inconclusive election as this one was. The market favourite, Mario Monti failed to acquire the electoral support required. Once it was clear that Monti stood no chance of returning to government with political support and legitimacy, what seemed of most concern to the markets was that of a possible return of Berlusconi. Even Berlusconi, the person many had declared "dead and gone" inched his way back into the political arena. In the case of the February 2013 election any possible return of Berlusconi was, it seemed for the markets, unacceptable. While Berlusconi was not returning an equally unsatisfactory solution was emerging – no result! Testing the market's patience even more was the rise of the social media Five Star Movement which openly defied the markets, talked down Europe and austerity and refused to be "blackmailed" into predictable responses of caution and restraint in front of the markets. As Italy's largest party they were sending out messages which wanted to stand up to the markets and not allow them to set the agenda for Italy. Is all this a sign that markets had become less stressed, less bewitched by the "risk on, risk off" herd mentality of the past few years. Yet the markets seemed patient enough to allow the political process to

find its new equilibrium as long as it was clear that austerity could not be entirely abandoned. The big question is why were the markets so “understanding”?

In some respects the markets read the Italian political situation better than the pundits. Notwithstanding Italy’s rejection of austerity and some anti-Euro demagogy in a country with the second largest public debt, the election results should have sent gyrations in the markets as was evidenced by similar events in Greece in 2012. Surprisingly the markets were not spooked and were relatively gentle with the Italian state of un-governability. But the markets were motivated aware of certain circumstances which characterised Italy different from other Eurozone nations. First Italy’s debt risk factor was not as alarming as it had been prior. Its bond rates of interest had declined from highs of 7 per cent to sustainable levels of 4 per cent and into the new Letta government of even lower levels. This was a positive result. Moreover it became clear that Italy had managed in 2012 to keep its budget deficit below the minus three per cent which most Eurozone countries did not. In addition much of its debt was long term ten year refinancing debt and therefore less prone to fluctuations. These were all positive indicators which gave the markets some sense of improvement and less fear of a country at risk than it had been previously.

Some thanks are also owed to the European Central Bank (ECB) changes to debt restructuring with the introduction of the Outright Monetary Transactions (OMT). This measure announced by ECB Governor Mario Draghi, removed the “tail risk” of a Eurozone blow-up in allowing the ECB to purchase distressed Eurozone countries’ bonds thereby reducing the speculative nature of bond markets and acting as a soother. Undoubtedly, these policy changes have limited the impact Italy’s election has had on financial markets but the economic paralysis remains. Levels of unemployment will rise, business investment declining, job prospects few and far between and a youth that is beginning to abandon its country.

Many in Europe and abroad were anxious to see changes in Italy through this election. One of the expectations was to see the end of Berlusconi and hopefully the return and confirmation of Mario Monti. In both cases neither of these wishes was entirely achieved. Berlusconi was not gone and Monti suffered a significant rebuttal from the Italian electorate. Mario Monti had become the Italian symbol of change but his popularity in Italy was determined by the severity of his austerity measures. What has possibly surprised most external observers has been the success of the Five Star protest movement. In some respects the Five Star Movement is also a warning to many in Europe and beyond. A protest movement received a hearing and sent many in traditional style politics packing. Moreover the austerity message which Europe so fondly wished to promote received a major setback. Could similar movements emerge in other European states and what repercussions could there be in the upcoming elections in the UK, and in Germany scheduled for September 2013.

While the aggressive bond and finance markets were not spooked like they were in Greece as a result of the inconclusive elections of 2013, the economic *malais* in Italy remains. Little economic growth, struggling export industries, little prospect for youth and an unemployment level which is conservatively placed at 12-13 per cent. What kind of investment and business decisions will be implemented and most importantly how can the plight of high unemployment and low economic opportunities be countered in an election result which promised much more and delivered much less.

A “national coalition” takes the rein of government

Over the months that followed the February election, Italian constitutional process compounded the complexity of the establishment of a government. Initially political consultations seeking a political agreement was exhausted and resulted in no agreement. The PD leader Bersani met with Monti, with Grillo and even Berlusconi and none of these discussions produced any acceptable solution. In the meantime procedures were set in motion for the new Presidential elections which both delayed the formation of a government and unexpectedly placed the PD party in crisis.

The President’s election required a combined parliament vote of 66 per cent of the total parliamentarians at least for the first three ballots. This was later reduced to 50.1 per cent from the fourth ballot onwards. Numerous names were put on the table and in the middle of this process Bersani found that almost 30 per cent of his parliamentary party had broken ranks and gone for their own candidate and not that presented by

the PD leader. Bersani realising he did not command the support of his party indicated his intention to resign after the complex government negotiations and the first congress of the party after the crisis. Finally in late April 2013, after more than two months of stalemate, the Italian President Napolitano, who himself had only just been confirmed for a further seven year mandate as President, offered the Prime Ministership to Deputy PD Enrico Letta the task of pulling together a government. This new government would be in the words of Napolitano "It was and is the only possible government," adding there was no room for "delay, in our country's and Europe's interests" (The Guardian 2013).

What is most unique about this government is that it is the first time Italy, in the post war period, has installed a "grand coalition" of both centre-left and centre right forces. While Berlusconi has no position in the government, his right hand man, Angelino Alfano is nominated to the powerful position of Minister of the Interior. Moreover the government is not entirely an elected government. More than one third of the Ministers are unelected merit based ministers. The "national coalition" was always considered a distant solution and became more viable as all other options were exhausted and agreement could not be reached. Its ability to pass profound legislation will be hampered by the presence opposing political sides. On the other hand going back to the polls was rejected by many and in the view of some would only produce even greater uncertainty – a solution none of the established parties sought fearing their parties would suffer even greater losses.

The new government knows full well that its task will be "promising to focus on improving the economy and unemployment rates and restoring faith in Italy's discredited political institutions" (ABC 2013). Growing economic decline in the southern Eurozone states has reached dramatic proportions with Spain declaring an official unemployment rate of 27 per cent and Greece needing to layoff 15,000 public employees to meet bailout conditions by the IMF. For Italy the economic needs are equally as serious if not as dramatic. One media outlet stressed:

Letta has said his priorities would be the economy, unemployment and restoring faith in Italy's discredited political institutions as well as trying to turn Europe away from austerity to focus more on growth and investment (Mackenzie and Jones 2013).

Letta's inaugural speech in the parliament in late April 2013 trying to shore up support for this "grand coalition" government contained aspirational content in terms of political reform. It raised such expectations that the Grillo movement representative Alessio Tacconi was forced to admit "If Letta does what he has promised, the Movement will no longer have any reason for its existence (Malaguti 2013). It was a rare show by the Five Star Movement of support to a speech which contained in lowering of politicians salary, elimination of the Provinces, removal of the property tax and no increase in sales tax.

Letta received further encouragement when the ratings agency Moody's kept its rating on Italian government debt unchanged at Baa2. Lower interest rates were also making it possible to buy time to implement much-needed reforms. Bond yields have fallen to their lowest in more than two years as investors hoped for enough stability to help Italy revive its economy and gradually tackle its large public debt. However as a form of warning, Moody's also said medium-term growth prospects were weak and forecast the economy would shrink by 1.8 percent this year, compounding more than two decades of stagnation.

CONCLUSION

The successful creation of a new Italian government through an emergency "national coalition" can hardly provide reassurance for a stable and effective government. It faces insurmountable tasks and hurdles in meeting the immediate needs of confronting a sluggish low growth economy, growing and high unemployment and large public debt. It also faces as discredited parties and unpopular political institutions. The show of strength which the Five Star Movement received in the elections, while manifesting itself as a protest movement, could be a clear warning to all, not only in Italy. A centre-left and centre-right together in the one coalition, after years of partisan hostility, seems difficult to believe that deep ongoing agreement will be possible. Nonetheless the emergency nature of the government and the agenda it has announced, places unprecedented pressures on what measures are required while the markets remain unnerved.

Crystal ball gazing on the duration of this government would suggest that the life of this government would be at best one year. Napolitano's recognition that this was "the only possible government" at this point in

time is a valid observation. With time there might be a change in the political mood of the country which at the moment is mutinous, angry and in search of answers. Italy's economic fragility requires little testing and the levels of unemployment in other Eurozone countries suggests that urgent rectification of the austerity based economy is needed. It would be a brave person who could reassure Italians that this government will not simply propose austerity as the way out of the economic *malais*. This was already tried by the Monti technical government and failed. Monti's almost disappearance from the political scene is testimony to this failed approach. Whether the Letta government will be able to restore faith in the political institutions and provide policies which grow the economy remains to be seen. Whichever way one looks at this government, this is yet another emergency solution to a failed political process. Given the circumstances that have favoured this unique "national coalition" to come to the task it would be unlikely that there are many more favourable cards which Italy can play.

REFERENCES

ABC Reuters (2013). New Italian government ends months of deadlock, 29 April 2013, <http://www.abc.net.au/news/2013-04-28/new-italian-government-agreed-after-months-of-deadlock/4655560>

Europe On Line. (2013). New Italian government sworn in, 28 April 2013, http://en.europeonline-magazine.eu/exchange-of-fire-at-the-start_278070.html, accessed 28 April 2013.

Jucca L. & Jewkes S. (2013). Italy markets take fright at complex election results, 25 February 2013, <http://www.reuters.com/article/2013/02/25/us-italy-vote-markets-idUSBRE91O0IT20130225>, accessed 3 May 2013.

Kington T., & Hooper J. (2011). Silvio Berlusconi bows out after Italian MPs vote for savage cuts, 12 November 2011, The Guardian, <http://www.guardian.co.uk/world/2011/-nov/12/silvio-berlusconi-resign-italy-eurozone>, accessed 3 May 2013.

Mackenzie J. & Jones G. (2013). Stalemate over, Italy's Letta names new government, 27 April 2013, Reuters News Agency, <http://news.yahoo.com/italian-government-could-settled-saturday-sources-035335771.html>, accessed 29 April 2013.

Malaguti A. (2013)., M5S, dubbi sull'opposizione a ogni costo, La Stampa, 30 April, 2013, p. 15.

Mascitelli B. (2010). The Italian economy: An introduction, Heidelberg Press, Victoria.

Potenza A. (2013). How the Election Might Still Be Good for Italy, 4 March 2013, The Atlantic, <http://www.theatlantic.com/international/archive/2013/03/how-the-election-might-still-be-good-for-italy/273677/>, accessed 30 April 2013.

Pullella P. & Fonte G. (2011). Berlusconi resigns, crowds in Rome celebrate, 12 November 2011, Reuters, <http://www.reuters.com/article/2011/11/12/us-italy-idUSTRE7AA2GC20111112>, accessed 3 May 2013.

Skynews (2013). Markets Dive Amid Italian Election Stalemate, 26 February 2013, Sky News, <http://news.sky.com/story/1056995/markets-dive-amid-italian-election-stalemate>, accessed 3 May 2013.

The Guardian. (2013). Italian government forged from team of rivals, 27 April 2013, <http://www.guardian.co.uk/world/2013/apr/27/italian-government-team-rivals-recession>

The Times. (2012). Helmut Kohl ignored signs that Italy was unfit to join eurozone, cited from The Australian, 11 May 2012, <http://www.theaustralian.com.au/news/world/helmut-kohl-ignored-signs-that-italy-was-unfit-to-join-eurozone/story-fnb64oi6-1226352443101>

Wearden G. & Fletcher N. (2013). Eurozone crisis as it happened: Italian political deadlock sends markets tumbling, 26 February 2013, <http://www.guardian.co.uk/business/2013/feb/26/eurozone-crisis-italian-election-deadlock-markets>, accessed 3 May 2013.

FINANCIAL PLANNING FOR RETIREMENT AMONGST SOUTH AFRICAN PROFESSIONAL SOCCER PLAYERS

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ABSTRACT

Logically, financially-educated individuals should make better financial decisions for their families, increasing their economic security and well being. The purpose of this study was to explore the financial planning and personal financial management of South African professional soccer players. In the process, a variety of issues were investigated. The research focused on the following important question: Why is financial literacy important particularly for soccer players who experience short-lived soccer careers. A quantitative research design involving the administration of a two-section questionnaire was adopted for the study. It was concluded that most professional soccer players plan poorly for their future because of a lack of financial literacy which results in them not being adequately prepared for the transition into retirement. Recommendations on the findings were made and the implications for future research outlined.

INTRODUCTION

In the last two decades, the issue of financial education has risen on the agendas of educators, community groups, businesses, government agencies and policymakers (Hilgert, Hogarth & Beverly, 2003). Financial literacy is the combination of consumer/investors' understanding of financial facts and concepts, and their ability to appreciate financial risks and opportunities to make informed choices, to know where to go for help and take other effective actions to improve their financial well-being (OECD, 2010). Individuals have had to become increasingly responsible for their own financial security following retirement (Lusardi, 2008). Furthermore, financial instruments have become increasingly complex and individuals are presented with new and sophisticated financial products from time to time in the market from which to choose from. Lusardi (2008) emphasized that the knowledge of more complex concepts, such as the difference between bonds and stocks, the working of mutual funds, and basic asset pricing is even scarcer. Increased interest in financial education has been prompted by the increasing complexity of financial products and increasing responsibility on the part of individuals for their own financial security (Hilgert et al., 2003).

Financial literacy is crucial for all employees. It is, however, particularly crucial for professional athletes due to their short-lived soccer career. Among these athletes are professional soccer players, many of whom receive lucrative salaries with little understanding of how to manage their finances (Ramsey, 2010). As a result, they extravagantly misuse their incomes as soon as they receive their first earnings. Many of them fail to budget for or save their money even though they intuitively know that this could improve their living style in the future. Indeed, financial literacy affects financial decision-making; and the lack of knowledge about basic financial concepts can be linked to poor planning for financial retirement.

Economists are beginning to investigate the causes and consequences of financial illiteracy to better understand why retirement planning is lacking and why so many households arrive close to retirement with little or no wealth (Lusardi & Mitchell, 2007). On the one hand, without money management skills, households have few other mechanisms to smooth out unexpected variations in their income, and so, shocks may leave permanent scars, such as interrupting the process of human capital accumulation at early ages. On the other, since financial literacy is one of the only means to accumulate assets in the absence of credit and insurance markets, the

capacity to save becomes one of the main vehicles of social mobility and of enhancing future income-earning possibilities.

Surveys of financial literacy have found that many households do not understand some fundamental financial concepts such as the difference between bonds and stocks (van Rooij, Lusardi&Alessie, 2007). Some studies have indicated that households or individuals that spend more effort planning for retirement reach retirement age with more wealth (Ameriks, Caplin&Leahy, 2003;Lusardi&Mitchell, 2007). Many of these studies have indicated that individuals with higher levels of financial literacy, income and wealth have more success in making informed financial decisions.

In terms of savings individuals have a choice between contractual savings or discretionary savings. Contractual saving involves individuals committing themselves to a series of payments such as premiums on insurance policies, contributions to pension funds and the capital amount payable on households' mortgage loans (Prinsloo, 2000). Discretionary saving, in contrast, refers to types of saving where households are not bound by any fixed commitments. All contractual saving normally stems from discretionary saving to the extent that contractual obligations are made on a voluntary basis. An exception is where the employee is bound by a contract of service to contribute to a pension fund.

South African professional soccer players do not enjoy the benefit of contractual saving, but rather they have to arrange for discretionary saving. Discretionary saving is based on individual choice which requires individual discipline and this becomes difficult particularly in the environment where there is no savings culture like in South Africa. Because of lack of financial literacy, many South African professional soccer players are unprepared and are ill-equipped to properly manage their salaries or realize the importance of making additional provision for their retirement. Over many years, education and information provision and promoting savings awareness through various campaigns have worked tirelessly to get South Africans to embrace their savings habit. According to Govender, the chairman of South African Savings Institute (SASI) government and corporate are saving, individual South Africans are not and the trend appears to be getting worse each year. The fundamental reason for this differential lies in consumer behavior and number of measures needed to be adopted to develop a savings culture in South Africa.

Life-Cycle Consumption and Saving Model

Considering the short lived career of professional soccer players the life-cycle consumption and savings model is used to highlight how this model can accommodate transitory career of professional soccer players. According to this model, individuals maximize utility or satisfaction over the entire course of their lifetimes. Decisions about savings made early in the life-cycle help determine the resources that are available over a long-term period. The life-cycle model implies that a retired individual's utility is a function of his/her ability to consume goods and services reflected in their current income and accumulated net worth.

To competently make saving and investment decisions, individuals need knowledge of the fundamental financial concepts including understanding of the relationship between risk and return; how bonds, stocks, and mutual funds work; and basic asset pricing (Lusardi, 2008). Furthermore a clear distinction between short-term and long-term financial planning is made. Short-term financial planning implies saving money for a particular consumption in a short period of time, such as saving to buy a television. On the other hand long-term financial planning involves saving money to sustain an individual in the long future period such as at retirement age. Short-term financial decisions differ from long-term financial decisions in two important ways. First, they are easily reversed in most cases. Second, there is far less uncertainty about the decision variables as one is concerned with the next few months rather than years.

Marx, Mpofo, Nortje and van de Venter (2008) affirmed that one of the most common sensitive beliefs according to the life cycle theory is that as individuals' age, they are assumed to become less risk tolerant in all aspects of risk taking and therefore invest less of their portfolio in equities and more in fixed income securities. They maintained that generally as they age, individuals increase their level of safer daily risk choices that affect their health. From a financial risk perspective, the basis for this belief is that older investors have less expected time available to recover from potential losses incurred by riskier assets such as equities. This has always been a

very common perception among financial planners and has generated fashionable and often convenient advice such as recommending that individual's investment portfolio should contain a percentage equity equal to 100 minus one's age.

Marx et al. (2008) comment that life cycle may be broken into three distinctive phases, each with its own individual motives of how investments and personal money management are viewed. Firstly, during the accumulation phase a typical individual will accumulate long-term assets at an early stage of their working career. Debt management plays an important role during this stage since the debt on most of the long-term assets acquired is typically large relative to one's net assets. Secondly, the consolidation phase, where most of the individual's debt has been repaid and income will typically exceed expenses. This stage is characterized by accumulation of an investment portfolio, since the time to retirement decreases risk control and capital preservation becomes essential. Capital preservation is geared towards the maintenance of the purchasing power of an individual, thereby allowing the investor's portfolio to grow at least at the current rate of inflation. At this stage the portfolio is focused on medium risk with portfolio weighting heavier in fixed income generating instruments such as high-quality bonds or large capitalization equity issues. Thirdly, the spending phase, during which an individual is financially independent and expenses are not recovered from income received, but rather from investments and retirement portfolios. Once an individual has reached retirement age, the active reinvestment of lump sums or reinvestment of pension funds often takes place. The emphasis is on capital protection of the investment portfolio which calls for low risk investment yielding dividends or interests such as treasury bills or a form of money market fund (Marx et al., 2008).

For professional soccer players, the life-cycle savings and consumption model is critical because a soccer career is essentially short. The funds that have been accumulated during the soccer career have to sustain the player for a longer period of life expectancy. Relatively, professional soccer players do not have long working careers that allow them to anticipate the likely financial demands and challenges emanating from retirement. Furthermore, a professional soccer career lacks job security because of their contractual form of employment is highly conditional on performance. The financial planning for professional soccer players has to be realistic and consistent in the formulation of income goals given the life cycle and the risk tolerance preferences of individual investors. When an individual professional soccer player seeks professional advice of a financial planner, there is considerable research and planning that has to be conducted by the advisor before the actual portfolio construction can commence.

Problem Statement

There is a growing concern regarding financial well being of South African professional soccer players when they retire from their soccer career. This is as a result of lack of financial planning and money management skills. Many players accumulate liabilities and lack financial independence. The consequences of indebtedness are that when income increases the levels of indebtedness increases (positive correlation) (Daniels, 2001). There is a huge gap in research, particularly in the South African context that has addressed the issue of financial planning among professional soccer players. The purpose of this study is therefore to attempt to fill this void by exploring the financial planning and personal financial management of South African professional soccer players.

Methodology

A quantitative research approach was adopted for the study. Quantitative studies designs are specific, well structured, have been tested for their validity and reliability, and can be explicitly defined and recognised (Kumar, 2011:103).

Data Collection and Analysis

For the quantitative data collection, 193 South African professional soccer players who are currently playing in the Professional Soccer League (PSL) in South Africa completed a two-part questionnaire. Section A comprised items requesting demographic information of soccer players, and 15 items in Section B requested information on their financial planning and financial management.

Data were analysed using the Statistical Package for Social Science (SPSS-version 20.0). The reliability of the instrument was ascertained by using Cronbach Alpha. A Cronbach Alpha of 0.970 for the financial planning scale was recorded. This exceeded the recommended Cronbach Alpha coefficient benchmark of 0.7 (Nunnally, 1978).

Ethical Considerations

Ethical considerations are of the utmost importance because human-beings are involved. As a result, the issues of confidentiality and informed consent are inherent. Permission to conduct the research was attained from the respondents as well as respective soccer clubs in the South African PSL. All respondents were informed both verbally as well as through a covering letter of the purpose of the study. They were also assured of anonymity and confidentiality.

Results

Demographics

In terms of their playing careers 29% (n=56) of the respondents played for less than 2 years, 39.9% (n=77) played for 2-5 years and 38.1% (n=60) played for 6 years and more. The majority of players (65%, n=125) had only a matric as their highest qualification. Most of the players (49.2%, n=95) were in the 21-25 years age category and single (80.6%, n=166). Of the respondents, the majority (78.8%, n=152) was not aware of their financial worth after retirement, 55.4% (n=107) did not have any investments and 65.8% (n=127) did not receive any financial literacy training.

Financial planning and financial management

Table 1 illustrates the responses of respondents with regard to their financial planning and financial management. The results in Table 1 indicate that there are serious concerns regarding the financial planning of South African professional soccer players. The high percentage of respondents who disagreed with the statements regarding their financial planning and financial management reflects that most of the respondents have not considered or reflected on their financial security after they have completed their playing careers. The South African Football Players Union (SARFU) reported that some of the problems experienced by retired South African professional soccer players include poverty, illiteracy, poor financial planning and substance abuse (Fleishman-Hillard, 2011). However these problems vary according to individual preparation, level of education and prospective career outside soccer. This echoes the sentiments of Rintaugu and Mwisukha (2011) who indicated that the transition to a non-working environment is often most traumatic for those professional athletes who have been the most visible, having earned high incomes and have little formal education and few job skills to transfer to non-sport occupations.

It is evident from the results that many South African professional soccer players are unable to control their spending and manage their debts. A significant finding is the high percentage of the respondents who disagreed that they are able to control their debt (42%) or spending (47%), and manage their finances (40%). This may be as a result of their general spending and saving behaviour which is determined by various factors such as material possession and social needs, traditions, standard of living, existing indebtedness, net worth, disposable income, the stance of business cycle, institutional and regulatory considerations as well as fiscal and monetary policy.

Interestingly, many South African professional soccer players have not been taught the basic principles of personal money management. As a result they are not well informed about financial management and retirement options. A high percentage (50.3%) of the respondents disagreed that they had been taught basic principles of money management, and 56.5% disagreed that they were well informed about retirement options and 57.5% of the respondents disagreed that they were financially literate. Lusardi and Mitchell (2007), in their investigation on how workers collect information to make their savings decisions, demonstrated strong links between financial knowledge and financial behaviour. Using the responses to their survey, they emphasised that the lack of financial literacy bears important significances for lifetime wellbeing. The focus on low levels of financial literacy is driven by a strong need to foster sustainable, long-term economic growth. Improving financial literacy can have significant benefits for everyone, no matter what their age or income. By developing

confidence, knowledge and skills to manage financial products and services, individuals will be better able to overcome or avoid financial exclusion. Such exclusion impacts on the opportunities individuals can pursue, their sense of security and their overall emotional and physical wellbeing (ASIC, 2011).

Table 1: Financial planning and financial management

Item	Disagree % (n)	Neither agree nor disagree	Agree % (n)
I am studying for a qualification that I can use during retirement	76.6% (148)	4.7% (9)	18.7% (36)
Upon retirement I will receive a guaranteed pay-out	75.2% (145)	6.7% (13)	18.1% (35)
Retirement will give me the chance to do different jobs	62.2% (120)	18.7% (36)	19.2% (37)
I am aware of the different jobs that I can do during my retirement	59.6% (115)	21.8% (42)	18.7% (36)
I have a clear understanding of retirement planning	58% (112)	25.9% (50)	16% (31)
I will be able to manage my investments upon retirement	58% (112)	23.8% (46)	18.2% (35)
I am financially literate	57.5% (111)	28.5% (55)	14% (27)
I am well informed about my retirement options	56.5% (109)	24.4% (47)	19.2% (37)
I feel that I will be well off in my retirement	55% (106)	29.5% (57)	15.5% (30)
I feel that there are ample opportunities for my after retirement	54.4% (105)	28.5% (55)	17.1% (33)
I have been taught the basic principles of personal money management	50.3% (97)	32.1% (62)	17.6% (34)
I am able to control my spending	46.7% (90)	32.6% (63)	20.7% (40)
I am currently in control of my debts	42% (81)	38.9% (75)	19.2% (37)
I am able to manage my finances well	40.4% (78)	37.8% (73)	21.8% (42)

The high percentage of respondent who were in disagreement with the following statement: *I will be able to manage my investments upon retirement* (58%) implies that when they retire most soccer players will not be able to maintain their high standard of living consistently (Maseko & Surujlal, 2011; Ramsey, 2011). In the process they may compromise their financial independence and accumulate liabilities (Naidoo & Maseko, 2012).

CONCLUSION AND RECOMMENDATIONS

It is noted that the financial planning amongst South African professional soccer players constitutes a dynamic and complex field of study. It is rather unfortunate that most professional players in the PSL are financially ill-prepared for their future beyond their playing days. To prepare players for their future in terms of both their careers as well as financial security it is imperative for soccer clubs to provide financial education for their players so that they can understand the importance of retirement planning and become responsible for their own financial security after their professional playing careers. To infuse a radical paradigm shift on financial planning, a clause could also be included in the players' playing contract to make attendance of financial training programmes compulsory. Alternatively, players should seek the services of advisers they can trust (Hadley, 2010). An intensive programme is essential that will educate professional soccer players on budgeting, spending wisely, calculating interest rates, starting and running a business, calculating profit, and savings, among others. This will enable the soccer players to plan for a sustainable financial situation on retirement. These basic concepts are not a preserve of people in business; they are basic knowledge that everyone needs to have to enable them make right decisions about spending, investing excess resources and borrowing for various purposes.

REFERENCES

Ameriks, J., Caplin, A. & Leahy, J. (2003). Wealth Accumulation and the Propensity to Plan. *Quarterly Journal of Economics*, 118, 1007-1047.

Australian Securities and Investments Commission (ASIC) March (2011). REPORT 229: National financial literacy strategy.

- Daniels, R (2001). Consumer Indebtedness Among Urban South African Households: A Descriptive Overview, Working Paper 01/55, Cape Town: Development Policy Research Unit, University of Cape Town.
- Fleishman-Hillard (2011). SAFPU and Liberty bring Financial Freedom to the Game. <http://www.insurancegateway.co.za/LifeProfessionals/PressRoom/ViewPress/Irn=5367&URL=SAFPU+and+Liberty+bring+Financial+Freedom+to+the+Game+1>. Accessed on 2013/04/18.
- Hardley, R. (2010). Money management key to future for athletes: A story every National Football League draft should read. <http://www.post-azette.com/pg/10122/1054575-66.stm>. Accessed on 2013/04/23.
- Hilgert, M. A., Hogarth, J. M. & Beverly, S.G. (2003). Household Financial Management: The Connection between Knowledge and Behaviour, *Federal Reserve Bulletin*, July, 309-322.
- Kumar, R. (2011). *Research Methodology: A step-by-step guide for beginners* (3rded.) Los Angeles , Sage.
- Lusardi, A. & Mitchell, O.S. (2007). Financial Literacy and Retirement Planning: New Evidence from the Rand American Life Panel, *Michigan Retirement Research Center*, University of Michigan.
- Lusardi, A. & Mitchell, O.S. (2007). Baby Boomer Retirement Security: The Roles of Planning, Financial Literacy, and Housing Wealth. *Journal of Monetary Economics*, 54(1), 205-224.
- Lusardi, A. (2008). Financial Literacy: An Essential Tool for Informed Consumer Choice? Dartmouth College, Harvard Business School, and NBER. http://www.dartmouth.edu/~alusardi/Papers/Lusardi_Informed_Consumer.pdf. Accessed on 2013/04/18.
- Lusardi, A. & Mitchell, O. (2007). Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education, *Business Economics*, 421, 35-44.
- Marx, J., Mpofu, R., van de Venter, G. & Nortjé, A. (2008). *Investment Management*, 2ed, Van Schaik, Pretoria.
- Maseko, J & Surujlal, J. (2011). Retirement planning among South African professional soccer players: A qualitative study of players' perceptions. *African Journal for Physical, Health Education, Recreation and Dance*, (Supplement 1), September 2011, 157-171.
- Naidoo, P. & Maseko, J. (2012). Organisational support for retirement planning among South African professional soccer players. *African Journal for Physical, Health Education, Recreation and Dance*, (Supplement 2), December 2012, 109-118.
- Nunnally, J.C. (1978). *Psychometric Theory* (2nd ed). New York: McGraw-Hill.
- OECD (2010). The Case for Financial Literacy in Developing Countries: Promoting Access by Empowering Consumers.
- Prinsloo, J. W. (2000). The saving behaviour of the South African economy, Occasional Paper No 14, South African Reserve Bank.
- Ramsey, D.J. (2010). Risk management for professional athletes. <http://ezinearticles.com/?Risk-Management-for-Professional-Athletes&id=6392531>. Accessed on 2013/04/18.
- Rintaugu, E.G. & Mwisukha, A. (2011). Retirement from competitive sport: The experiences of Kenyan soccer athletes. *Current Research Journal of Social Sciences*, 3(6), 477-482.
- Stones, C. (1985). Qualitative research: A viable psychological alternative. *The Psychological Record*, 35, 63-75.
- Van Rooij, M., Lusardi, A. & Alessie, R. (2007). Financial Literacy and Stock Market Participation. National Bureau of Economic Research, Inc, NBER Working Papers: 13565.

LOCAL ECONOMIC DEVELOPMENT: AN EMERGING REALITY IN THE POST-APARTHEID SOUTH AFRICA

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ABSTRACT

Over five decades the world has observed many years of unprecedented development policies and remarkable global economic growth. Despite increasing global economic growth, global divisions are increasing with economic gap between states and people growing which exacerbate poverty in most developing countries such as South Africa. Given increasing attention to poverty and underdevelopment, local economic development(LED) has become an emerging reality in South Africa due to transition to developmental local government where responsibilities to promote socio-economic development have been delegated to municipalities with the hope that governing at the local level may be easier and the notion of developmental local government may be feasible. The paper seeks to investigate the emergence of LED in South Africa since the advent of democratic state in 1994.

INTRODUCTION

The emergence of LED in recent years has attracted greater attention because of the ongoing developmental policy reforms in most countries such as South Africa (Akah, 2008). Nel (2001) and Ramukumba (2012) point out that LED has been practiced for a while in the majority of the first world countries such as the United State of America (USA) and United Kingdom (UK). While the reasons for the adoption of LED as economic growth and poverty alleviation strategies are many and varied, LED came as a result of the fall in the economic growth of most industrialised countries after the World War II (Nel, 2001; Ramukumba, 2012). Akah (2008) argues that despite the increasing attention associated with LED in recent times, there are still global divisions with economic gap between the states and people growing at a high rate in most developing countries. Millions of people previously cushioned by the state have been thrown into poverty with the transition to market economy which allowed them to face an unacceptable poverty situation and living below a poverty line (Akah, 2008). These conditions exacerbated poverty levels which ultimately compromised the abilities of the world's poorest people to exploit the available economic opportunities in most developing countries such as South Africa (Akah, 2008).

Given the increasing attention to poverty and the greater responsibilities assigned to municipalities in the economic and social development of localities, LED has since become an emerging reality in order to address the challenges of poverty, underdevelopment and rising unemployment in South Africa (Akah, 2008; Ramukumba, 2012). The advent of a democratic state in 1994 saw the inevitable emergence evolution of LED as a relatively new concept within all municipalities in the country. One of the reason for the emergence of LED in South Africa is the fact that the country is pursuing transition bridge to a developmental local government with greater responsibilities for the promotion of economic and social development that have been delegated to municipalities with the hope that governing at the local communities may be easier and developmental local government may be feasible (Akah, 2008; Ramukumba; 2012). Since then, LED has attracted greater attention and interest from the central government and municipalities as well as within donor communities in the country (Akah, 2008). Accordingly, LED has been one of the preferred instruments for economic and social development in localities and communities to address the challenges of poverty and unemployment in South Africa.

The purpose of this paper is to investigate the emergence of LED since the democratic dispensation in South Africa. This is to determine how and why LED remarkably became one of the developmental approaches to economic growth and poverty at local communities. The paper discusses the concept and nature of LED, and also contextualises the global experiences of LED to South Africa. Furthermore, it also examines various pieces of legislation as well as policies designed to promote and support the development of local economies.

Defining Local Economic Development

According to Ramukumba (2012), it is imperative that before exploring the complexities of LED to gain some clarity on what essence the concept aims to be, however, the concept is compounded with diversities which could lead to terminological ambiguity. LED is defined as a process in which partnerships between local government, civil society and private sector are established in order to manage the available resources, create jobs and stimulate the economy of local communities (Nel, 2001; Triegaardt, 2007; Hampwaye, 2008; Mpengu, 2010; Ramukumba, 2012). LED put more emphasis on local control using the potentials of human, institutional and physical resources to stimulate local economy and job creation. LED is a 'participatory process that encourages and facilitates partnership between local stakeholders, enabling the joint design and implementation of strategies based on the effective use of local resources to create decent jobs and sustainable economic activities' (Naude and Badenhorst-Weiss, 2012, p. 51). According to Tsheola and Mokgokong (2012), LED is the process of 'incremental advancement of a combination of job creation, income generation, establishment of business partnerships, enhancement of entrepreneurships, as well as increased economic output and improved market opportunities' (p. 380).

Similarly, Ramukumba (2012) further defines LED as a process by which public and private sector as well as the civil society work collectively to create better conditions for economic growth and employment creation through the usage of available resources. As argued by Tsheola and Mokgokong (2012), LED 'manifests itself in a form of job creation, income generation, the establishment of local business partnerships, increased economic growth, improved market opportunities and enhancement of entrepreneurships at local settings' (p. 385). In light of the above, there are common similarities across these definitions of LED concept, which mainly differ in terms of specificity.

LED as a practical concept, aims to strengthen the economic capacities of localities in order to improve the future and quality of life for all (Ramukumba, 2012). It focuses on the community's competitive advantage and provides communities with the means to identify new opportunities, create jobs, income, develop local infrastructure and enhance the revenue sources for the municipality and its people (White Paper on Local Government, 1998). Thus, it lays an emphasis on local needs and the use of local resources for the development of its own economic potentials. According to Malefane (2009) and Ramukumba (2012), the main purpose of LED is to create the economic capacity of local communities in order to improve economic future and the quality of life for all.

Most communities in both the developed and less developed countries turn more increasingly to LED strategies as a response to the challenges posed by globalization and the widespread move towards decentralisation of governance to local governments (Ramukumba, 2012). 'Described as a locally driven process designed to identify, harness and utilize resources to stimulate local economy and create new job opportunities, LED has become a widely practiced and applied as a development strategy in the local government and at community levels which has since necessitated the policy considerations in South Africa' (Mpengu, 2010, p. 3; Nel, 2001).

Policy and legislative frameworks for LED in South Africa

The transition to developmental local government necessitated the need to apply and promote LED at local level to overcome the backlogs and challenges facing municipalities such as poverty alleviation and job creation in the country and resulted in a series of broadly interrelated legislative and policy considerations for LED which include the fact that unemployment and poverty situation in the country required the need to seek economic growth and employment-generating strategies at both national and local spheres of government (Akah,

2008, p. 20). The following are the policy and legislative frameworks implemented and enacted for LED in South Africa:

- **The Constitution of the Republic of South Africa (1996)**

Local government in South Africa is constitutionally mandated to promote social and economic development in their municipalities (South African Constitution, 1996; Mpengu, 2010; South African Local Government Association (SALGA), 2010). The Constitution places great responsibility on municipalities to facilitate and promote LED in the country (Triegaardt, 2007). Sections 152 (c) and 153 (a) of the Constitution provides for the municipalities to promote social and economic development of the local communities (Malefane, 2009; Mpengu, 2010). However, according to Department of Provincial Local Government (DPLG) (2006), the schedule in the Constitution that identifies the functions of municipalities does not include LED. Therefore, it can be interpreted that LED is a constitutional mandate for municipalities to promote social and economic development of localities in addressing issues of poverty and unemployment in which municipalities have a facilitating role to play in order to provide an enabling environment for investment through the provision of infrastructure and quality services, rather than programmes for job creation (DPLG, 2006; Tsheola and Mokgokong, 2012).

- **White Paper on Local Government (1998)**

The White Paper on Local Government (1998) introduced the concept of developmental local government which is defined as ‘local government committed to working with citizens and groups within the community to find sustainable ways to meet their social, economic and material needs as well as improving the quality of their lives’ (Triegaardt, 2007, p. 3; Rogerson and Rogerson, 2011, p. 999). The White Paper makes it quite clear that municipalities are not responsible for creating jobs but are responsible for ensuring that overall economic and social conditions of the locality are conducive to create employment opportunities. Accordingly, local government is charged with the responsibility to promote LED in municipalities by creating an enabling environment which will allow all individuals to have socio-economic conditions conducive for their daily activities (SALGA, 2010).

- **Municipal Systems Act 32 of (2000)**

According to the Municipal Systems Act 32 of 2000, all municipalities are required to develop and prepare annual and five year Integrated Development Plans that set out the development targets with detailed projects and programmes of municipalities (Allan, 2003, Triegaardt, 2007; SALGA, 2010). The Act requires municipalities to promote economic and social development. This Act obliges local government to draw up Integrated Development Plans that address spatial and transport planning, infrastructure and the promotion of economic development (Nel, 2001; Malefane, 2009; SALGA, 2010).

- **LED Policy (2002)**

The LED Policy emphasise a more community-orientated approach to LED, stressing that LED should be pro-poor orientated and target previously disadvantaged people and marginalised towns and regions. Ideally, municipalities should support local initiatives, which encourage local job creation while still responding to changes in the national and global economy (Patterson, 2008; Mpengu, 2010; SALGA, 2010).

- **Policy Guidelines for implementing LED in South Africa (2005)**

The vision that forms the core of Department of Provincial and Local Government’s (DPLG) Policy Guidelines for Implementing LED in South Africa is the creation of robust and inclusive local economies that exploit local opportunities, address local needs and contribute to national development objectives such as economic growth and poverty eradication (DPLG, 2006; Triegaardt, 2007). As such, LED is designed to identify, harness and utilize resources to stimulate local economy and create new job opportunities (Mpengu, 2010).

- **National Framework for LED in South Africa (2006)**

The LED Framework focus on improving good governance, service delivery, public and market opportunities in municipalities as well as enterprise support and business infrastructure development (SALGA, 2010; Rogerson and Rogerson, 2011).

Local Economic Development as an emerging reality in South Africa

Local Economic Development, which is relatively a new development strategy in most developing countries such as South Africa, has been widely practiced for a while in most developed world countries such as the USA and UK (Nel, 2001; Mpengu, 2010, p. 2; Ramukumba, 2012, p. 10). Although there are many different reasons for the adoption of LED strategies in both developed and developing countries, this initiative is closely associated with the so-called 'development impasse' (Mpengu, 2010; Ramukumba, 2012). According to Ramukumba (2012) and Mpengu (2010) LED came as a result of the direct downfall on the economic growth of the first world countries after the World War II in 1945.

According to Nel (2001) and Triegaardt (2007), over one million jobs were lost in the 1990s as a result of poor economic performance, global competition and de-industrialization in most developed countries. The downfall of the economies in these countries exerted great amount of pressure on governments, in particular the municipalities, to be creative in attracting investments in order to improve and address the challenges facing their economies (Ramukumba, 2012). According to Bond (2001), the decline in economic growth in the global economy which started in the 1970's necessitated the need for local municipalities to be more entrepreneurial.

The world economic crisis observed during the 1970's remains as an intriguing phenomenon because of its intensity and duration which led to rising unemployment, high inflation and instability in the economic sector in most countries (Akah, 2008; Ramukumba, 2012). However, different countries and regions globally face similar challenges at varying degree and intensity. Accordingly, the macroeconomic policy instruments put in place after World War II to regulate the economy at international and national level, have seemingly reached inherent limitations or protected the interest of dominant nations such the USA and UK as well as the powerful world institutions such as the World Bank and International Monetary Fund (Akah, 2008; Ramukumba, 2012). Since then, the overwhelming changes in the production, fragmentation of demand and continued expansion of international trade have increased the ineffectiveness of nation-states' regulatory structures and institutions (Akah, 2008).

As such, most countries such as South Africa have been forced to adopt free market policies through transnational corporations, in the hope of attracting new investments to spur development in their own countries. Transnational corporations have since become powerful to the extent that free market policies are imposed to less developed countries, while regions, localities and individuals within such setting are looking for or acting to create alternative economic possibilities that suit their needs and protect their local economic interest (Akah, 2008). With such circumstances, LED became an experimental tool in these countries to be explored not only as an alternative economic approach but also as a complementary model to overcome the weaknesses inherent in the conventional economic approach which seems to allot economic resources and processes through dominant world interest institutions (Akah, 2008).

Consequently, the world over the past decades has witnessed the emergence of LED as new local initiative that have become preferred instruments for economic development in localities and communities around the world including South Africa (Akah, 2008; Ramukumba, 2012). The evolution of LED in post-apartheid South Africa is closely linked to the transition to developmental local government to address the legacy of the past regime (DPLG, 2006). Constitutional debates on the future form and shape of local government articulated more proactive roles for municipalities during the early 1995 in the country. The declaration of local government as a sphere of government reflects the importance that was attached to local state actors during that early period. The Local Government is regarded as the sphere of government closer to the people (White Paper. Section 152 (c) and 153 (a) of the Constitution declare that a fundamental objective of local government is to promote social and economic development in localities within the country (South African Constitution, 1996; White Paper on Local Government, 1998; Nel, 2001).

The concept of LED is currently attracting considerable attention in both the government and policy agenda as well as within the donor communities such as the private sector and the rest of civil society in South Africa (Nel, 2001). Hence, LED is enjoying widespread acceptance and credibility in the country. Nel (2001) emphasises that although there is common agreement on the concept of LED, only few tangible results have been achieved since LED emerged on national development policy agenda. Many decades of apartheid regime in

South Africa eroded the capacity of most community initiatives aimed at the promotion of economic development as well as addressing issues of poverty and underdevelopment at local level (Nel and McQuaid, 2002). It was only after the collapse of the apartheid regime in 1994 and the initiation of development policy reforms that LED began to emerge to any significant degree in the country.

LED in South Africa is motivated by appalling levels of poverty and underdevelopment of local communities, and the need to address the apartheid legacy (Nel and McQuaid, 2002; Triegaardt, 2007). Accordingly, the main aim of LED is to address the inherited inadequacies and the failure of apartheid policies to facilitate equitable economic growth and social development in an effective manner (Malefane, 2009). Since the onset of democratization in South Africa, local stakeholders and communities in the country are now having more opportunity to participate in the promotion of economic activities at the local level since unemployment and poverty is most felt at this level. As such, LED has recently been adopted as an approach to create more equitable economic growth in South Africa in order to create conducive and enabling environment for local communities to exploit economic opportunities. Rogerson (2001) argues that LED should be an integrated and multi-disciplinary approach aimed at poverty alleviation through pro-poor economic growth which involves supporting sustainable economic activities in the municipalities.

The unique nature of LED in South Africa is based on the fact that there is significant endorsement for LED interventions and the wide spread application of LED interventions within the country (Nel, 2005). With such attention to LED by the government and other key stakeholders and the prioritization of the needs of the poor, the country serves as learning laboratory with respect to policies of LED on the continent (Nel, 2005; White Paper on Local Government, 1998). This therefore makes the case of LED in South Africa very significant.

CONCLUSION

The paper discussed LED in South Africa and how it emerged as a new developmental approach or strategy to create enabling and conducive environment for socio-economic development in the country. It can be concluded that the concept of LED is relatively new strategy which gained much attention after the advent of new democratic South Africa in 1994. Since then, LED emerged as new developmental strategy aimed at creating enabling environment for both social and economic development through ensuring that it improves the quality of lives for all citizens in the country. As such, municipalities in the country are recognized as the implementation agents of LED on behalf of the central government and must strive to provide a positive and conducive economic climate for all individuals within their municipalities. However, LED since its initiation, has not live up to its expectations and the success stories regarding the strategy have been very limited in terms of sustainable processes. Therefore, the strategy should be reviewed and revitalised if the aim of the strategy is to be realised in the country.

Given that, municipalities as agents of development, must also focus on improving the quality of life by providing in the basic needs of the local residents. As part of the process of developmental local government, the inclusion of all citizens should be compulsory and that policy and legal frameworks should be adhered to as the guidelines of achieving the aim of LED. LED experiences in South Africa are making a contribution to the debates in the international development arena, as such LED should be highly prioritized as one of the development strategies to address the challenges of underdevelopment and unemployment in the country.

REFERENCES

- Akah, E.F. (2008). Local economic development, an emerging reality in Sub-Saharan Africa: case of the Republic of South Africa. Masters Thesis. Development and International Relations, Aalborg University, Denmark.
- Allan, K. (2003). An analysis of local economic development Policy in South Africa's recent past, with particular reference to the role of Municipalities in local economic development.
- Bond, P. (2002). Local economic development debates in South Africa. *Occasional Papers no.6*. Municipal Services Project.

- Department of Provincial and Local Government. (2006). Stimulating and developing sustainable local economies: National frameworks for Local economic development in South Africa 2006-2011. DPLG: Pretoria.
- Hampway, G. (2008). Local economic development in the city of Lusaka, Zambia. *Urban Forum*, 19, 187-204.
- Malefane, S.R. (2009). Structuring South African municipalities for effective local economic development implementation. *Journal of Public Administration*, 44(1.1), 156-168.
- Naude, M.J. & Badenhorst, J.A. (2012). Factors inhibiting the South African automotive industry from fully contributing to local economic development. *Journal of Contemporary Management*, 9, 48-65.
- Nel, E.L. (2001). Local economic development: a review assessment of its current status in South Africa. *Urban Studies*, 38(7), 1003-1024.
- Nel, E.L. & McQuaid, R.W. (2002). The evolution of local economic development in South Africa: The case of Stutterheim and Social Capital. *Economic Development Quarterly*, 16 (1), 60-64.
- Nel, E.L. (2005). Investigation of pro-poor local economic development in South Africa. World Bank-Netherlands Partnership programme, evaluating and disseminating experiences in local economic development.
- Patterson, C. (2008). Country Report Local Economic Development in South Africa. GTZ: Strengthening local governance programme's LED component in South Africa.
- Ramukumba, T. (2012). The local economic development in the Eden District Municipality, Western Cape Province, South Africa: a case study of emerging entrepreneurs in tourism industry. *American Journal of Tourism Research*, 1(1), 9-15.
- Rogerson, C.M. (2001). Local economic development in post-apartheid South Africa: a ten-year research review. *The Development decade: South Africa 1994-2004*, Section 5: Municipal governance and development, 225-271. Human Sciences Research Council Press: Pretoria.
- Rogerson, C.M. (2003). Towards pro-poor local economic development: a case for sectoral targeting in South Africa. *Urban Forum*, 14(1), 53-79.
- Rogerson, C.M. & Rogerson, J.M. (2011). Improving the business environment for local economic development in South Africa. *Journal of Public Management*, 46(3), 995-1009.
- South African Government. (1996). Constitution of the Republic of South Africa. Government Printer: Pretoria.
- South African Government. (1998). *White Paper on Local Government*. Government Printer: Pretoria.
- Triegaardt, J.D. (2007). Assessing local economic development and social welfare benefits in a global context. Paper prepared for the annual conference held by the Association of South African Social Work Education Institutions (ASASWEI) at the University of Johannesburg on 3&4 September 2007.
- Tsheola, J.P. & Mokgokong, M.J. (2012). Public service delivery and local economic development in South Africa's impoverished communities. *Journal of Public Administration*, 47(1.1), 379-393.

THE INDEBTEDNESS OF PUBLIC SERVANTS IN THE PUBLIC SERVICE IN SOUTH AFRICA

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ABSTRACT

The management of personal finance by public servants in the Public Service is endemic to the integrity with which they manage finances. There are concerns and indications of over-indebtedness of public servants in the Public Service in South Africa. The objective of this paper is to investigate the extent to which public servants in the Public Service are indebted and to determine the causes and the impact of such indebtedness. Literature review on indebtedness was done. The paper draws on the report released by Public Service Commission in 2007 on indebtedness of public servants in South Africa. Key findings reveal that public servants witness the greatest increase in the number of loans and percentages of indebtedness in the Public Service. Based on these findings, this paper recommends that urgent measures be put in place to deal with explosive debt crisis in the Public Service.

INTRODUCTION

South Africa has witnessed extraordinary growth in unsecured micro lending over the past few years which resulted in microloans being easily accessible to the greater public. (James 2010; Johnson and Rogaly 1997). While there is an increasing need for financial services to cater for a wide variety of applications (such as food, education and clothing as well as unforeseen circumstances like illness, theft and deaths) but this has to be coupled with the ability to manage personal finances in a disciplined manner (Gordhan 2012; Whiteford and McGrath 2000). According to Devpruth, manager of statistics at the National Credit Regulator (cited by De Waal 2012), South Africans owe some R1.3 trillion in consumer debt. This includes all outstanding debt balances including mortgages, vehicle finance and unsecured loans. Almost half of South Africa's population is trapped in debt spiral and are financially unwell due to poor financial management (Times Live 2012).

Public servants, are expected to possess the ability and competency to manage personal as well as government's financial resources in a more responsible, effective and disciplined manner. Public Service Commission (2007) maintains that accessing microloans and other credit is sometimes necessary to alleviate temporary financial challenges but the concern is when such debt is acquired as a result of over-indulgence therefore causing over-indebtedness. Governance without effective managerial leadership becomes futile in the provision of services to the public. There is, however, an unfortunate history of over-indebtedness among the public servants in the South African Public Service. When public servants in the Public Service are unable to manage their personal finances and take out loans which they cannot service, this poses a serious challenge in ensuring good governance or accountability for public resources. A bad financial administration is likely to fuel a negative perception about the standard of ethics in the Public Service (Public Service Commission 2007).

In addition to other credit, Baumann (2001; The World Bank 2002) indicate that most people are heavily dependent on the micro-lenders and informal local moneylenders for the provision of microloans/credit which is available at high interest rates and this also causes them to be trapped in debt spirals. An inability to service the micro lending debt leads to garnishee orders being issued against public servants who default on repayments.

RESEARCH OBJECTIVE

The objective of the paper is to investigate the extent to which public servants in the Public Service are indebted and to determine the causes and impacts of such indebtedness.

Research Methodology

Literature review on public servants' indebtedness was done. In November 2007, Public Service Commission released a report on the indebtedness of public servants in South Africa for the period 2006/2007. The comparison on income and expenditure surveys was compared in respect of trends in indebtedness, nature of debts and vulnerability. It focuses on government officials at the National and Provincial levels. Against this background, the paper attempts to discover the causes and impact of indebtedness of public servants in the Public Service in South Africa.

Research Problem

The underlying problem confronting public servants is over-indulgence in acquiring loans and this result in over-indebtedness and inability to service the loans. This is likely to fuel a negative perception in ensuring accountability for public resources. This also diminishes their wellbeing and negatively affects their productivity. In the final instance, garnishee orders are being issued on the public servants who default on repayments. It is questioned if they are able to manage and administer government's financial resources.

LITERATURE REVIEW

The South African Public Service

The South African Public Service plays a crucial role in service delivery. A Public Service is a service which is provided by government to people living within its jurisdiction, either directly (through the public sector) or by financing private provision of services (Naidoo 2004). It is associated with a social consensus (usually expressed through democratic elections) that certain services should be available to all, regardless of income, race or gender. Public services are considered to be so essential to all that for moral reasons their universal provision should be guaranteed (Siswana 2007; Naidoo 2004). Public servants refer to any individual employed by the government to render public services like educators, the South African Police services (SAPS) and health services. Public servants are expected to manage government's financial resources in a competent, efficient and disciplined manner. The wellness of public servants is a critical aspect of the government to create an effective and productive public service that is committed to service delivery. It becomes necessary to ensure that and assist public servants to manage not only their personal finances but also state's financial resources in a responsible and transparent manner. There are, however, concerns about the number of public servants who lack skills to manage financial resources and this is likely to fuel negative perception about the standard of ethics within the Public Service (Da Costa 2008; Public Service Commission 2007).

Public servants, like other individuals in South Africa, have access to financial services, especially credit. There exist many financial institutions, formal and informal, competing for clients and offering different financial products and/or volume of transactions. While banks are the main providers of financial service, the micro lending industry has also developed on a faster rate focusing on consumer credit (Meagher and Wilkinson 2001, Mashigo and Schoeman 2011). While it is acknowledged that access to credit is sometimes necessary to deal with temporary challenges, serious concerns are when public servants acquire such credit or debt as a result of over-indulgence. Da Costa (2008; Public Service Commission 2007; Schicks 2013) found that public servants over-indulge to an extent that they are reeling under a mountain of personal debts and are indebted and trapped in debt spirals. Indebtedness means using loans to pay off other loans and by allocating more than fifty percent of monthly net income to loan repayments (Schicks 2013). It is a financial state that imposes restrictions on the household's ability to repay their total outstanding debt. Some public servants take loans from more than one lender at the same time and accumulate more debts than they can handle. They even take out new loans to pay off existing ones (Schicks and Rosenberg 2011). According to the Public Service Commission (2007), the repayment of debts is made through the government's personnel and salary administration system (PERSAL) to

the lenders, and in most cases, to micro-lenders. Due to their inability to service their debts, garnishee orders are ultimately being issued on public servants. The commission further indicates that payments made through the PERSAL as well as garnishee orders place a huge burden on the public service and this has negative impact on their well-being and, in the final instance, productivity (Da Costa 2008).

Access to Formal Financial Services

Financial services entail a broad range of financial products. The term financial services, according to Greene and Berroth (2002), are about enabling people to amass usefully large sums of cash. Financial services include, among others, savings, credit, transmission of cash from one place to the other as well as other relevant financial products. The provision of financial (or banking) services is one of the major objectives in South Africa. The formal financial sector in South Africa is well developed and highly concentrated in urban areas in terms of services available and the volume of transactions (Mashigo 2007). Banks are the main providers of financial services, especially credit facilities. Banks compete for clients with ownership of mortgageable property of relatively high values. They target people who possess pay slips as proof of employment and collateral as security for loans. For the banking sector, collateral plays an important role because it insures repayment if the borrower's income is insufficient (James 2010). This carries with it the transaction and administrative costs, interest rates, and the costs of acquiring information about the borrower. Electronic banking, though convenient for clients, easily enables public servants to have access to the necessary technology to solicit multiple loans. Greene and Berroth (2002) point out that the environment in which majority of public servants live or work has high net worth demographics, electricity and communication channels, and therefore makes them part of these new ways of banking.

In addition, while the micro lending industry steadily grows on the basis of focusing on consumer credit and is regarded as a central poverty alleviation and a means of deriving economic growth (Van de Ruit 2001; Mashigo 2007), the industry is also easily accessible by both the medium- and high-income earners among which are public servants such as educators, the South African Police Services (SAPS) as well as the managers, Directors-General and Deputy Directors-General in the Public Service (Public Service Commission 2007). The industry was intended to distribute small-scale loans to the poor households who have been marginalised by the formal banking sector. The industry, like the banks, also targets clients with proof of employment and is characterised by large disparities in access, cost and types of credit provided based on income levels. The operation and regulation of the industry, which is aimed at protecting borrowers from exploitation and lenders from reckless lending, instead allowed lenders to charge interest rates that exploited borrowers who end up not having access under a controlled interest rate. Aggressive or reckless lending by micro-lenders places vulnerable borrowers in a debt spiral by lending them more than they can afford.

Furthermore, when access to formal financial services is exhausted, public servants look for alternative sources of finance such as the local informal moneylenders who are regarded as responsive to their financial needs at that time. These moneylenders provide lending of an emergency type and are usually operating outside the legal provision for lending (Greene and Berroth 2002). The moneylenders offer vulnerable clients loans of various amounts at exorbitant interest rates. The moneylenders are required to lend within the Usury Act's interest rate limits which are between 29 and 33 percent per year (Greene and Berroth 2002) but exploit clients by charging them monthly interest rates of between 40 and 60 percent (Mashigo 2007). The lenders operate in the black communities such as the townships, rural areas and corners of small cities. Micro Lenders Association (MLA) 2002) refers to them as unpleasant and shady characters who choose to remain faceless and with no physical buildings/offices or fixed addresses and show no mercy in their dealings with their clients.

An Overview of Micro Lending/Finance in South Africa

The concept of micro lending, according to Porteous (2001; Murdoch 1999), is derived from numerous examples of traditional informal financial systems that have existed around the world for many years. Micro lending emerged in its current form as an alternative to conventional banking, and micro credit has become a major tool of development among poorer segments of society. Micro lending, in which vital components include access to credit, savings, and insurance schemes, involves the distribution of small-scale loans to poor households (Meagher and Wilkinson, 2001). The micro lending sector differs from the banking sector with respect to client

features, loan portfolios, culture, and institutional structure. Micro lending/finance was founded on innovative financial contracts and products, and new attitudes other than conventional insurance mechanisms, to extend credit to the poor. In developing countries it is founded on, and generally made through, the dominant social technology, the so-called minimalist solidarity group lending method, developed by the Grameen Bank of Bangladesh in the 1970s which started shaping the modern industry of micro lending (see Mashigo and Schoeman 2011; Porteous 2001; Murdoch 1999). At that time, micro lending initiatives introduced many new innovations which, among others, removed the need for physical collateral and decreased asymmetric information problem and people could be relied on to repay their loans using joint-guarantees. The clients are expected to form groups through peer group self-selection, depending on self-formulated rules in terms of peer review to ascertain trust and a thorough knowledge of each member's life circumstances and to overcome uncertainty in the absence of financial collateral. These rules make transaction outcomes predictable and restrict the discretion of the individual.

Today, practitioners and governments around the world, including South Africa, are increasingly focusing on expanding financial services to the poor and low-income in frontier markets on the integration of microfinance/lending in financial systems development. The micro finance industry in South Africa is, however, also easily accessible to even the middle- and high-income earners (Mashigo and Schoeman 2011). The main concern is the continuing reckless lending by micro-lenders who place borrowers in debt spirals.

Regulation of Micro Lending In South Africa

South Africa took initiatives to protect consumers/borrowers from usurious exploitation by placing limitations and responsibilities on micro-lenders. Since there was no regulatory body in the past, especially before 1992, most micro-lenders conducted business in any way they liked and many borrowers suffered from their exploitative nature (Mashigo 2012). Micro-lenders used illegal methods to conduct lending and borrowing activities, for example, illegal provision of credit and collection methods were used. Micro-lenders commonly charged exorbitant interest rates on loans, took their clients' bank cards, personal identification numbers (PIN), pay slips and identity documents as prerequisite for obtaining a loan, and so that they can draw interest and redemption payments from the cash dispenser after pay has been remitted to the borrower's account (Meagher and Wilkinson (2002). Since 1992, the micro lending industry in South Africa grew significantly on the basis of focusing on consumer credit and experienced exponential growth. It has become a mainstream development activity and a means of deriving economic growth. According to Baumann (2001), 1992 marked the exemption of small loans from the interest rate limitation. The state issued an Exemption to the Usury Act of 1992 that removed interest rate ceilings on small loans under R6 000 with a repayment period of less than thirty-six months. The purpose of the Usury Act of 1992 was to place limitations and responsibilities on micro-lenders to protect consumers from usurious exploitation. Baumann (2001) mentions that this resulted in the tremendous growth in the micro lending industry with a central focus on providing short-term cash loans at very high interest rates on a large scale. Due to the aggressive lending by formal as well as informal (township) moneylenders and the uninformed and vulnerability of borrowers, these borrowers found themselves in a spiral of debts.

Although micro-lenders were forbidden by law to engage in harmful and exploitative practices, Public Service Commission (2007; Mashigo 2012), found that some still do and the practice is very prevalent in small cities, townships and/or rural areas. This provided the impetus for a second and new Exemption to the Usury Act in 1999 (Meagher and Wilkinson 2001). This, therefore, resulted in an establishment of the Micro Finance Regulatory Council (MFRC) in 1999 as a regulatory body and the new regulations to govern the industry. This called for revisions to the amount of small loans to be increased from R6 000 to R10 000. The main purpose of the MFRC was to promote sustainable growth of the micro lending industry, serve the unserved credit needs, while ensuring that consumer rights are protected. The lenders only focused on the low-income borrowers who were formally employed so that their salaries could be tapped to ensure repayment of the loans. The requirement is that borrowers become bank customers so that repayment is guaranteed through the provision of a bank debit card and personal identity number (PIN) to the lender. The vast majority (up to 80%) of the South African low-income groups continued to borrow funds from micro-lenders as an alternative source of finance (Micro Finance Regulatory Council 2003; Grenfell 1999).

In spite of these initiatives by government to protect consumers' rights, exploitation of borrowers by micro-lenders continues to be serious cause for concern. Poor information flow between the lenders and borrowers, for example, contributed to borrower exploitation, that is, lenders not providing accurate information to the borrower about the rules and regulations governing the micro lending business and the implications of the cost of lending. This compounded the danger of over-indebtedness. The concern raised by Baumann (2001) is that the dependence of people on micro-lenders leaves them deeply vulnerable to losing any scarce assets they may have and to rising cycles of indebtedness.

The weakness of the micro lending sector, according to Staschen (1999), is that it is largely unregulated and even unscrupulous lenders who exploited the borrowers by charging them exorbitant interest rates and causing them to be over-indebted entered the sector. Disclosing personal identity numbers and surrendering the bank cards violate the banking confidentiality and increases the danger of fraud on the side of the micro-lenders because the borrowers, including public servants, are vulnerable to exploitative practices of these micro-lenders who charge exorbitant interest rates. Some of the public servants lack experience in personal finance and do not know exactly how much is deducted from their accounts (Mashigo 2007). High interest differentials among different providers with identical products indicate lack of effective regulation. This exacerbates, instead of reducing, exploitative practices of micro-lenders. Another contributing factor was that the MFRC was unable to enforce the regulation on the entire micro lending industry. Meagher and Wilkinson (2001) emphasise that there still exist a large number of unregistered lenders who contravene the Act by offering vulnerable borrowers loans of various amounts and at exorbitant interest rates.

The challenge facing South Africa was to revise the legislation governing micro lending. Given the weaknesses in consumer credit legislation in South Africa, a regulatory framework, the National Credit Act No. 34 of 2005 (NCA), was introduced and came into force on 1 June 2007 repealing numerous legislations, including the Usury Act of 1968 and related subordinate legislation that allowed micro lending (Bankseta 2006). The main purposes of the NCA include improving accessibility of the credit market to all South Africans, including the previously disadvantaged consumers, enhancing consumer rights and education, consistent treatment of all consumers and credit providers, as well as promoting responsibility in the credit market by encouraging responsible borrowing, avoiding over-indebtedness and discourages reckless credit granting by credit providers (Republic of South Africa 2005; Bankseta 2006). This means the Act provides for consumer rights including protection against discriminatory and unfair credit market practices such as over-indebtedness. In order to achieve the purposes of the NCA, the National Credit Regulator (NCR) has been established in terms of the Act to oversee the NCA and to regulate and enforce consumer credit. In developing an accessible credit market, the NCR's role is to promote and support a credit market and industry that is fair, transparent, responsible, efficient and accessible.

In light of this, the legislation proved unable to enforce the regulation on the activities and practices of all the lenders, for example, informal and/or unregistered micro-lenders operating lending and borrowing businesses in the black townships, rural areas and small cities in urban areas. These lenders, according to (James 2010), contravene the legislation and continue to do business as normal and impact negatively on vulnerable borrowers by offering them multiple loans and at very high interest rates, causing them to be over-indebted. Mashigo (2007) found that the lenders continue to confiscate vulnerable borrowers' bank or ATM (Automated Teller Machine) cards and using these to withdraw the money owed to them at the end of the month. This, in itself, presents conflicting objectives between the regulation and the operation of micro-lenders. The regulation ignores the fact that these informal lending practices are continuing and intensifying and these micro-lenders are difficult to track and regulate.

The Causes and Impact of Indebtedness on the Public Servants

It becomes imperative in this paper to highlight what causes borrowers' indebtedness. Wisniwski (2010) found that most of the micro-lenders use persuasive sales techniques to attract borrowers and/or public servants to access loans from them. Micro finance institutions (MFIs) drive public servants to indebtedness, for example, by using over-aggressive sales and marketing techniques that pressurise public servants to take out a new loan after they have paid off existing ones. According to Mashigo (2011), some use eye-catching debt phrases such as "buy without deposit", "no payslip needed", "swipe your card five times in a month and stand a chance to win R50000

(\$5.556)”, “are you blacklisted? We can assist you remove your name”. Such techniques and phrases can incite borrowers to borrow beyond reasonable limit and place them in financial distress (Schicks 2013). Some of the practices relate to self-incentives that accrue to lenders than considering borrowers’ financial situations. Examples of such are using a volume-focused incentive system, where loan officers are rewarded for disbursing massive loans even if clients struggle to repay.

Many borrowers are vulnerable to indebtedness. The majority of public servants, for example, are unable to determine the total cost of credit such as how much interest rate is added to the initial loan but for as long as money is made available by the time it is needed (Mashigo 2011; The Education and Compliance Directorate 2013). In the absence of a credit reporting service, lenders find it harder to assess client repayment capacity because they have no way of knowing about clients’ repayment obligations to competing lenders (Schicks and Rosenberg 2011). Where the lenders are not assessing repayment capacity, ever increasing loan sizes can eventually outstrip borrowers’ ability to repay. The tendency of lenders to gradually increase loan sizes puts public servants at risk if there has not been sufficient investigation of their ability to repay (Schicks and Rosenberg 2011). The moneylenders, for example, provide instant cash to individuals without first checking whether the individuals are already indebted or not. Their practices are motivated by the inability of the government to track and regulate them and therefore operate illegally and in whatever manner they like (Mashigo 2012). Public servants also utilise financial services of these moneylenders who exacerbate their already existing debt problem. Bad borrowing decisions can also push public servants into situations where it is very difficult or impossible to repay their loans. Schicks and Rosenberg (2011) mention that public servants consistently make choices that diminish their well-being in significant ways. If public servants take loans for non-income generating purposes, then the loan use does not generate returns that compensate for the interest expense. In addition to this, lenders sometimes fail to give borrowers (public servants) clear and accurate information about loan costs and its terms, which could be communicated in a format that supports good decision-making. Concerns raised by De Waal (2012) are that the interest rates charged by the MFIs are higher than those charged by commercial banks and margins in unsecured personal lending are huge, while margins in banking products like credit cards, overdrafts, home loans and even asset-based finance like car finance are much smaller and consequently less profitable.

MFIs’ operations may reduce public servants’ ability to make smart choices if their advertising and face-to-face marketing do not communicate loan conditions including pricing in accurate, fair and easy to understand terms. Schicks (2013) indicates that where public servants are not informed about the total interest charged, they strongly underestimate the repayment periods and total amount to be repaid and may borrow more than they can handle.

The impact of indebtedness is also crucial in determining the manner in which public servants manage financial resources. There are various ways in which indebtedness impacts on public servants. Productivity is a fundamental aspect of service delivery in the Public Service. When public servants are indebted, this impacts negatively on service delivery and poses a serious challenge not only in ensuring good governance or accountability for public resources management but also in managing their personal finances (Center for Financial Inclusion 2008). The majority of the public servants who are indebted end up suffering from stress, anxiety, and the worst scenario, depression. As a result, they end up being referred for counseling and treatment. Coupled with this, is the problem of lack of money to attend such counseling and treatment. The problem may be exacerbated by the likeliness to skip recommended test, treatment, follow-up or visits to their medical practitioners (doctors). Public servants are directly affected by indebtedness in that they may need more money for hospitalisation, treatment and medication and this can indirectly affect the state in that these public servants are unable to work to their maximum capacity and this negatively impacts on productivity (Center for Financial Inclusion 2008).

For effective and increased level of productivity needs employees who are in a good state of health and mind. Once health problems are experienced by employees as a result of financial distress, this is bound to have a negative impact on their level of productivity (Public Service Commission 2008). Other contributing factors that negatively impact on productivity are ill-health, absenteeism and poor performance. If a person already suffers from one or other types of illness, financial distress could worsen his/her condition, resulting in the employee being away from work for an extensive period of time.

Schicks (2013) emphasises that indebtedness poses a serious risk to the micro finance institutions (MFIs) in that it contradicts the institution's social mission as it can worsen the poverty of microfinance customers, threaten their social positions and lead to psychological disorders. People who are affected by micro lending debt and especially garnishee orders tend to get sick more often than persons not affected by such a problem (Public Service Commission 2007). The other contributing factor is that most of the public servants who own bond houses are affected by fluctuations in interest rates. The increase in interest rate ultimately reduces their income and that leads to the drop in the general living standards (Center for Financial Inclusion 2007). This directly causes some of the public servants to fail to commit to repayment of their bonds. Those residing in leased properties fail to pay their rent and are as such evicted from the properties. Where bills for water and electricity services are not paid for, such services are then disconnected by the municipality from the houses and/or properties (Center for Financial Inclusion 2008). In the long-run, the creditworthiness of these indebted public servants can be negatively affected to an extent that they are permanently marginalised from accessing further credit. This is supported by Karley (2003) who found that about 29% of the South African population is unable to access credit partly due to indebtedness.

The indebtedness of public servants can impact on policy-makers and cause them (policy-makers) to destabilise the micro finance industry which might end up denying many potential borrowers access to credit. This poses a risk of backlash from donors, public and social investors, who may withdraw their funding, not only microcredit but microfinance in general (Schicks and Rosenberg 2011).

Schicks and Rosenberg (2011) found different levels of indebtedness. These include, among others, transitional over-indebtedness, pauperisation and extreme dependence. While, on the one hand, transitional over-indebtedness is when public servants spend their income servicing the debt to an extent that it leads to a poverty trap and prevents any accumulation of assets, pauperization, on the other, is when public servants go to an extent of selling their assets to finance their debt but the debt levels continue increasing with no realistic prospect of meeting their repayment obligations in the long run. Extreme dependence is when public servants depend on kin support for daily survival and have no possibility of ever repaying their debt (Schicks and Rosenberg 2011). The impact on public servants is complete loss of self-dignity and complete social isolation.

To augment their low levels of income as a result of indebtedness, public servants usually end up engaging in additional remunerative work outside the Public Service in an effort to try service their debts or ease their level of indebtedness. The fatigue and stress that is associated with the holding of two jobs at the same time is likely to impact negatively on the state's capacity to carry out its mandate of service delivery (Public Service Commission 2007). The level of indebtedness among public servants can result in the erosion of their ethics and morals to an extent that they may be enticed to commit corrupt practices by accepting bribes and committing fraud as a remedy to their financial strife (Public Service Commission 2008).

In the extreme cases, stress factor such as financial difficulties or indebtedness has shown to lead to suicide (De Waal 2012; Biswas 2010). The most common used method of suicide includes hanging, pesticide poisoning (eg rat poisoning), firearms and self-immolation (setting oneself on fire). Biswas (2010) mentions that government report in India revealed that more than 80 people have committed suicide due to micro loans default. Some indebted borrowers suffer from heart attacks due to the pressure exerted by micro finance institutions for repayment of debts (Biswas 2010).

Garnishee Orders

As alluded to above, access to credit is sometimes necessary to deal with temporary challenges, however, serious concerns are when public servants acquire such credit or debt that they are unable to service. In the final instance, garnishee orders are being issued on the public servants who default on repayments. A garnishee is a court order that is served by the sheriff or messenger of the court on the employer ordering the employer to make deductions from the employee's salary or wage in settlement of a debt owed by the employee to a third party creditor (Allwright 2012) or a process of petitioning for and getting a court order directing a person or entity (garnishee) to hold funds they owe to someone who allegedly is in debt to another person, often after judgement has been rendered (Hill and Hill 2005). A specified amount of money is deducted from the employee's salary or wages each time the employee is paid until such time the debt has been paid in full. A court will only make such

an order where it is satisfied that there is valid underlying debt, or there has been a valid written consent to the order being taken, or the court has previously made order instructing that the debtors (employee's) salary or wage be attached (Allwright 2012).

These garnishee orders impact negatively on debtors in that some of them do not fully understand the cost of an order, their obligations in terms of an order and how fees and interest influence the repayment period (Arde 2012). In addition to excessive legal fees that are charged, some irregularities include wrong capital amounts that are impossible for a clerk of the court to detect (Allwright 2012; Road 2008). Furthermore, there is also no statutory cap on the amount that can be deducted from the debtor's salary. The law only states that the deduction must not cause the employee not to have sufficient means for the maintenance of himself and his dependence but it is very common for a garnishee order to result in near-zero or even zero take-home income (Arde 2012). Allwright (2012) also found that poor administration by credit providers often leads to a situation where the same debt is handed over to different attorneys for collection. Road (2008) further indicated that debtors sometimes receive garnishee orders even if their loans are fully paid. This problem emanate from a situation where garnishee orders are issued from court which is unknown or inaccessible to the debtor. The law states that the garnishee order must be issued from the jurisdiction of the debtor's employer (Arde 2012). Most of the garnishee orders bear forged signatures and other sections of the documents are incomplete and salary deductions are done without the debtor's consent (Arde 2012, Road 2008). Debtors balances are sometimes affected by miscalculation made by attorneys wherein certain payments made are not recorded (Arde 2012).

RESEARCH FINDINGS AND DISCUSSIONS

The research found that 1.2 million public servants are indebted to micro-lenders. The total debt owed to micro-lenders by public servants amounted to R13,3 million during 2006/2007 financial year. Of this amount, R3,3 million (25%) is attributed to employees in the National departments (example. senior managers, Directors-General, Deputy Directors-General and heads of departments). The remaining R10 million (75%) is attributed to public servants based in Provincial departments (Public Service Commission 2007). Major concerns raised in this paper is that senior managers, who are high-income earners, are supposed to possess skills and competences to manage finances in a responsible and disciplined manner so that they are able to effectively deliver services to the South African community. It becomes questionable if these senior managers are able to carry out their employment responsibilities as they should and this deficiency impacts on their productivity. It was found that 4063 public servants made payments to micro-lenders through PERSAL and of these, 1304 (32%) were officials at Provincial level and 2759 (68%) at Provincial level. The majority of public servants who made payments to micro-lenders fall within the age group 40-49, and then 50-59 (Da Costa 2008). Other occupations such as the South African Police Service (SAPS) recorded the second highest number (843), followed by 299 of the occupational category Cleaners and 226 of the Nursing occupational category (Public Service Commission 2007).

It is imperative to emphasise that while it is found that public servants are indebted to micro-lenders as alluded to above, we argue that other sources of finance such as informal moneylenders also contribute to indebtedness. They offer unsecured loans at illegally high interest rates to individuals, often forcing repayment by blackmail or threats of violence or bodily harm (Mashigo 2012). These moneylenders were and still are regarded as very helpful, especially to those who are experiencing financial distress and need cash. When there is no other alternative for borrowers, the lenders appear to be the solution, and specialised in short-term loans, generally for thirty days. They were and still are most prevalent in black communities like townships and rural areas and lend mostly to people whose ability to repay can verify. The underlying problem is that these moneylenders place borrowers in debt spirals by providing instant cash to individuals without first checking whether such individuals are already indebted or not. The problem continues to exist due to inability of the government to track and regulate them.

It was further found that out of R1.2 million public servants, 216857 of them made garnishee related payments through PERSAL amounting to astronomical debt of R1 billion (around \$9 billion). R235 million (around \$2115 million) (23%) is attributed to garnishee orders paid by 59987 (28%) senior officials in the National departments and R776 million (77%) to 156870 (72%) by officials in the Provincial departments.

Given these figures, it is evident that indebtedness level is more pronounced at the Provincial than National level. These are indications of lack of proper financial planning by public servants especially on Provincial level. In view of these, if serious measures are not taken and put in place this situation will be damaging not only to the Public Service, but also to South Africa as a nation.

CONCLUSION AND RECOMMENDATIONS

The paper analyses the indebtedness of public servants in the Public Service in South Africa. It is evident that public servants are trapped in debt spirals and struggle to cope with their personal finances. The indebtedness has negative impact not only on them, but also on the Public Service as the employer as well as the public at large. While public servants are indebted to micro-lenders, we argue that alternative sources of finance such as informal moneylenders are sought and these exacerbate the problem. Tracking and regulating these lenders in South Africa appears to be difficult.

Although there is regulation governing micro-lenders, there are still increasing indications of reckless lending by most micro-lenders which place public servants in financial distress. This is evident from continuous court cases in South Africa pertaining to reckless lending and garnishee orders issued to public servants.

The alarming amount of debts as well as garnishee orders issued to public servants in the Public Service, especially senior officials at National and Provincial levels are serious concerns that need to be addressed. They are thus involuntary consumers of debt and have a high propensity to become permanently indebted. It is in this regard that urgent measures be put in place to assist public servants and deal with explosive crisis they face.

It is, therefore, recommended that to overcome the problem of indebtedness in the Public Service, PERSAL database needs to be continuously updated and audited so that the gaps and weaknesses can be identified. All debts of public servants should be included in the database to determine affordability and this will reduce indebtedness. In addition to this, credit bureaus should be reviewed in order to strengthen coordination and cooperation among lenders in general. This will ensure that total debt per public servant is disclosed to all lenders to limit credit exposures.

It is further recommended that public servants be educated through targeted borrower education programmes to improve their personal finance skills and to conscientise them about the implications and the cost of credit that impact negatively on them. In so doing, garnishee orders will be curbed. It is also important that regulators should learn from the failures of the previous regulatory framework and ensure that a sustainable and effective regulatory framework is structured, and not the one that repeats failures of the past. The framework should effectively minimise or reduce aggressive lending by micro-lenders while limiting access to loans by public servants/borrowers.

Furthermore, measures to track the formal micro-lenders who exploit public servants and contravene the rules have to be put in place or improved. The question for further research is how to track informal moneylenders in order to improve the operation of the micro lending sector?

REFERENCES

- Allwright, P (2012). Garnishee orders: facts and answers. Pretoria: Moneyweb
- Arde, A (2012). Garnishee orders: are you exploited?. Pretoria: Independent Online
- Bankseta (2006). National Credit Act. Pretoria: Teba Bank
- Bauman, T (2001). Micro finance and poverty alleviation in South Africa. Bay Research and Consultancy Services
- Biswas, S (2010). India's micro-finance suicide epidemic. India: BBC News

- Center for Financial Inclusion (2008). Personal debt and consequences. Ireland: Library and Research Service
- Da Costa, W. J (2008). Public servants plagued by huge personal debt. South Africa: Independent Online
- De Waal, M (2012). South Africa: Debt Traps, the Silent killers of the Vulnerable. South Africa: Daily Maverick
- Gonzales, A (2011). Over-indebtedness in Microcredit. Washington DC: Certified Government Auditing Professional (CGAP)
- Gordhan (2012). Millions trapped in debt spiral. Republic of South Africa: Digital Media and Marketing Association
- Greene, A. & Berroth, A (2002). The kwa Khulisa project report: A study of how “Creative Africa South” can empower women through creativity and business. USA: Wellensley College
- Grenfell, M., Overview of the market for micro lending in South Africa: Demand and supply, in *Finance and Enterprise*, March 1999
- Hill, G.N. & Hill, K.T (2005). Garnishee order. USA: McGraw-Hill Companies, Inc
- James (2010). Money-go-round: Personal Economies of wealth, aspiration and indebtedness in South Africa.
- Johnson, S. & Rogaly, B (1997). Micro finance and poverty reduction. London: Oxfam and Action Aid
- Karley, N. K (2003). Challenges in Mortgage Lending for the Under Served in South Africa: United Kingdom: Heriot Watt University
- Mashigo, M.P (2007). Extending credit to the low-income and poor households in South Africa: A system of principles. Thesis. Johannesburg: University of Johannesburg.
- Mashigo, M.P. & Schoeman, C. “Microcredit and the transforming of uncertainty since 1976: International lessons for South Africa”, *New Contree Journal, A Journal of Historical and Human Sciences for Southern Africa*, Vol. 62, (2011):149-176.
- Mashigo, M.P (2012). Non-collateral approaches to developing survivalist enterprises in South Africa: International best practices. Paper presented at the Fourteenth Annual International Conference of the Global Business and Technology Association (GBATA), USA, New York, 10-14 July 2012
- Micro Finance Regulatory Council (2003). Submission to the portfolio committee on finance on indebtedness
- Murdoch, J. “The Microfinance Promise”, *Journal of Economic Literature*, Vol. 37, No.4, (1999): 1569-1614.
- Naidoo, G (2004). Leadership and governance for a sustainable public service. The case for selected South African public service organisations. Thesis. Pretoria: University of Pretoria,
- Porteous, D (2001). Is Cinderella finally coming to the ball?: South African micro finance in broad perspective. FinMark Trust
- Public Service Commission (2007). Report on the Indebtedness of Public Servants. Republic of South Africa: Public Service Commission.
- Republic of South Africa (2005). National Credit Act (Act No. 34 of 2005). Pretoria: Government Printers
- Road, R (2008). The incidence of and the undesirable practices relating to garnishee orders in South Africa. Pretoria: University of Pretoria Law Clinic

- Schicks, J (2011). Over-indebtedness of Microborrowers in Ghana- An Empirical Study from a Customer Protection Perspective. Belgium: Universite' Libre de Bruxelles
- Schicks, J (2013). The definition and causes of microfinance. Over-indebtedness: A customer Protection Point of View: Belgium: Universite' Libre de Bruxelles,
- Schicks, J. & Rosenberg, R (2011). Too Much Microcredit? A Survey of the Evidence on over-indebtedness, Occasional Paper. Washington DC. Certified Government Auditing Professional (CGAP)
- Siswana, B (2007). Leadership and governance in the South African Public Service: An overview of the public finance management system. Thesis. Pretoria: University of Pretoria
- Staschen, S (1999). Regulation and supervision of micro finance institution: State of knowledge. Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) GmbH
- The Education and Compliance Directorate (2013). Over-indebtedness. Republic of South Africa: Department of Trade and Industry, Consumer and Corporate Regulation Division
- The World Bank (2002). Voices of the poor from many lands. Washington: Oxford University Press and The World Bank
- Time Live (2012). Half of South Africans households trapped in serious 'serious debt'. Times Media Group.
- Van de Ruit, C (2001). Micro finance, donor roles and influence and the pro-poor agenda: The case for South Africa and Mozambique, Draft paper: Donor funding conference
- Whiteford, A. & McGrath, M (2000). Distribution of income in South Africa. South Africa: Human Science Research Council
- Wisniwski, S (2010). Over-indebtedness: Evidence, causes and consequences. Szech Republic: European Fund for Southeast Europe

SMALL BUSINESS DEVELOPMENT IN SOUTH AFRICA: BEST PRACTICES AND LESSONS FROM INDIA

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ABSTRACT

The paper assesses the development of small businesses in South Africa in an effort to alleviate poverty, create jobs and improve livelihoods. Lack of financial resources needed for investments in productive assets and to develop their businesses is a common problem confronting many small businesses. This paper analyses best practices and lessons from India to determine how small businesses are financed, promoted and developed. Lessons from India reveal that specialised and dedicated financial institutions, schemes and development institutions that have been established are successful in financing and developing small businesses. Based on these findings, it is recommended that effective financial institutions (especially banks), be established in South Africa to support and finance small businesses using different approaches.

INTRODUCTION

Small businesses/enterprises play a critical role in economic growth and development, and economic empowerment. Their main aims are to create jobs, alleviate poverty and sustain livelihoods. Government in South Africa had intensified its efforts to unlock the potential of the small business sector as a whole by creating a business environment that is market-driven and conducive to the entrepreneurial endeavours of all South Africans (Department of Economic Development 2010). After the political transformation of 1994, the South African government published, in 1995, its White Paper on the National Strategy for the Development and Promotion of Small Business in South Africa to create an enabling environment for the accelerated growth of the small business sector (Department of Trade and Industry 2003). A year later, in 1996, the National Small Business Act was promulgated to define the small business sector and classified it into four categories, namely, micro enterprises, very small enterprises, small enterprises and medium enterprises. Micro enterprises are described as those between one to five employees, usually the owner and family, with no license or formal business premises, have labour legislation and turnover is less than VAT registration limit of R300 000 per year. Very small enterprises have less than ten paid employees, use technology and operate on the formal market, include self-employed artisans and professionals. Small enterprises have less than 50 employees, are formally registered with fixed business premises and with the owner managing the business (no longer directly supervised) but more complex management structure. These enterprises have the ability to make the transition to medium-scale enterprise. Lastly, medium enterprises have less than 100 employees with mainly owner managed but decentralised management structure with division of labour. These enterprises operate from fixed premises with all formal requirements (Department of Economic Development 2010).

It is evident that all these enterprises, given their different categorisation and definitions, need different support strategies for their development. However, the National Strategy for the Development and Promotion of Small Business in South Africa was later on (around 2004) plagued by a host of problems which include poor/non-delivery by institutional structures. For example, the Strategy failed to differentiate between the different sectors of small business and an umbrella strategy, instead of different ones, was adopted to develop these businesses (Isern and Porteous 2005). This impacted negatively on job creation, economic growth and poverty alleviation. In an effort to address these, the South African government developed and adopted, in 2004,

the Integrated Small Business Development Strategy (ISBDS) in South Africa for over ten years (2004-2014), an economic strategy towards the promotion and acceleration of entrepreneurship and small enterprises as a means for employment generation and creating sustainable livelihoods (Department of Economic Development 2010). This is an endeavour to target different segments of enterprises or businesses to stimulate entrepreneurship through, among others, financial support initiatives and regulatory reform. The general small, medium and micro enterprises (SMMEs) were developed and regulatory frameworks and strategies or institutions to promote their growth introduced. However, these enterprises, according to Zingoni (2010), are one of the most important and yet most problematic for government and policy-makers due to their low growth rates and inability to create sufficient employment.

The concern raised here is that none of the established financial support institutions or strategies is targeted towards different kinds of enterprises. Njiro and Compagnoni (2010; Mashigo 2012) argue that institutions providing support to the enterprises operate in isolation and this creates duplication and overlap of some services. Furthermore, although microfinance institutions offer an essential financial service in the economy, information on these services is not effectively disseminated to all township and rural communities but overconcentration and focus tend to be in areas deemed more conducive for operations.

There are times when small businesses need sums of money greater than what they have and usually get such sums from borrowing. Many of them do not have any choice but to incur debt/credit due to their inability to finance their businesses on a continuing basis (AfricaFocus Bulletin 2004). The difficulty they face is that the provision by the formal banking and micro lending institutions is dominated by the need for collateral which is used to assess the probability that borrowers would default on loan payments and whether a borrower is considered a low or high risk (Song 2002). Majority of small businesses do not have collateral or valuable assets that can be used to secure credit and are, therefore, deprived of need-based financial services. Collateral plays an important role in bank's openness to loss and therefore in the transforming of uncertainty. Collateral serves as a guarantee for the lender or bank for taking the risk in case the borrower will default in that it decreases the amortization period of and loss on the loan. The need for collateral as mechanism to decrease probable loss from especially first time borrowers provides constraints for the lender to serve the credit needs of people who do not have such collateral or valuable assets that can be used to secure credit (Mashigo and Schoeman 2011; Murdoch 1999; Karlan 2007; Southern African Development Bank 2005). It is therefore questionable if these small businesses will become part of the economic mainstream if their social, economic and financial environment is not addressed by sustainable structures, mechanisms and policies that are specifically developed for them.

Given the current situation, circumstances and constraints under which small businesses operate, a rethinking in terms of their support and development becomes necessary. Practical implications are that with no effective support strategies, initiatives or even dedicated institutions, small businesses will continue to face obstacles in obtaining the finance they require to expand or even start-up and market conditions that exclude them and work in favour of large ones. This would have negative consequences which include inability to create new economic opportunities, become sustainable or even close down. Policy makers, government and other stakeholders in South Africa need to seriously consider and intensify the support for small businesses/enterprises through effective and tailor made policies and the distinction has to be made between different kinds of enterprises before such support can be provided and policies implemented and not only use general strategies for all of them. The formulation and monitoring of development policies, programmes and projects, for example, are important in this regard.

Many countries, such as India, for example, have different views with regards to collateral requirements and have demonstrated elements of best practices which enable the provision of loans/credit to people without collateral. Song (2002) argues that collateral does not always guarantee repayment of loans but can pose risks for a lender (e.g. bank) when a loan is impaired and other sources of payment which a borrower utilises become inadequate.

This paper resumes by analysing how small businesses in South Africa are financed and developed. It proceeds with the discussion on the National Strategy for the Development and Promotion of Small Business in South Africa. This provides an overview of some important strategies or institutions which were introduced to promote the growth of small businesses. The next section provides discussions regarding approaches and schemes that underlie successful international best practices to tackle the problems that hinder small business

development. Of importance in this section is an analysis of successful approaches and schemes initiated by India to finance, develop and support small businesses. On the basis of this, conclusions and recommendations are also presented in the last section.

RESEARCH PROBLEM AND OBJECTIVE

An underlying problem confronting many small businesses/enterprises seeking a loan to develop their businesses is lack of collateral or valuable assets required by the formal banking and/or micro lending institutions in securing loans/credit. These institutions' concern is that lending to people and/or small enterprises whose repayment capacities seem uncertain is risky and unprofitable and are therefore marginalised. The objective of this paper is to analyse best practices and lessons in India and to determine how small businesses are financed, promoted and developed.

RESEARCH METHODOLOGY

The research is based on review of accumulated literature related to small business development in South Africa. International best practices and lessons which are equally important and crucial were also used in an attempt to identify strategies that underlie successful implementation of financial institutions and schemes. Best practices and lessons from India are therefore analysed to determine how small businesses are developed. Evidence is provided that dedicated banks and schemes such as Small Industries Development Bank of India (SIDBI), Credit Guarantee Fund Scheme for Micro and Small Enterprises and SIDBI Foundation of Micro Credit (SFMC) effectively provide a complete range of financial and non-financial services to small and micro businesses as well as micro finance institutions. The practices can be instrumental in improving access to credit to small businesses in South Africa thereby helping them to develop and grow their businesses.

Financing and developing small businesses in South Africa

The financial system in South Africa has undergone significant changes and transformation to accommodate a rapid growth of the micro lending providers who employed different strategies in providing credit to the poor and small businesses. In response to the increasing need for micro credit, the providers started to design financial products, developed new concepts, strategies and methods to focus on the financial needs of small businesses as well as other poor households. Micro finance therefore emerged as an alternative to conventional banking and has become a major tool of development among the poor segments of society and an appropriate solution to the inaccessibility of credit by small enterprises. Both the poor and small enterprises need small amounts of loans in the form of micro credit which is acute for the development and sustainability of their livelihoods and businesses. Micro credit, a component of micro finance, according to Mallya (2005), is a fund source that is made available to very small livelihood ventures or activities which directly benefit the poor, or the category of financial services offered to lower-income people, the unemployed as well as small enterprises and others living in poverty, where the unit size of the transaction is usually small (Isern and Porteous 2005; Smit et al 1996). Micro credit has, in many developing countries, successfully enabled extremely impoverished people, including small enterprises, to engage in self-employment projects that allow them to generate an income and, in many cases, begin to build wealth and exit poverty. Access to credit has changed the lives of the poorest communities in the world. According to Van de Ruit (2001), many studies have shown the importance and benefits of access to credit as a poverty alleviation strategy. Most poor people and small enterprises are able to smooth consumption, sustain loan repayments, develop their small businesses, and begin to improve household conditions in general. When small credit is received, it creates an addition to the resources available during that time and can be allocated to the household activities and businesses. The availability of micro credit can contribute greatly to the development of small businesses and can help them expand their businesses, build assets, stabilise consumption, shield themselves against unforeseen circumstances, and most importantly, create jobs and improve livelihoods (Van de Ruit 2001).

In an effort to support and develop small businesses, South Africa took important initiatives and strategies to develop small businesses. It becomes imperative to analyse some of the strategies and/or institutions that have been developed and established to support small businesses in South Africa.

The National Small Business Strategy (NSBS)

The White Paper on the National Strategy for the Development and Promotion of Small Business in South Africa was published, in March 1995, to create an enabling environment for the accelerated growth of the small business sector (Department of Trade and Industry 2003). A year later, in 1996, the National Small Business Act (Act 102 of 1996) was promulgated to regulate, stimulate and promote small business activities in South Africa. Institutional structures were therefore created from the Act to coordinate the National Small Business Strategy (NSBS). The Act defines the small business sector and classifies it into four categories as described above, namely, micro, very small, small and medium enterprises (von Broembsen 2003). Specific objectives of the NSBS are job creation, economic empowerment and poverty alleviation. The focus would be on support programmes that would provide training in basic business skills to equip people to run and operate their enterprises more profitably, and in so doing, enable them to cross the poverty line (von Broembsen 2003).

However, eight years later, around 2004, after an intensive process of consultation with key stakeholders in small businesses in South Africa, a wide-spread consensus was that the National Small Business Strategy has had very little impact on small businesses. Critics were based on the poor/non-delivery by institutional structures. For example, the Strategy failed to differentiate between the different sectors of small business and an umbrella strategy, instead of different ones, was adopted to develop these businesses (Isern and Porteous 2005). This impacted negatively on job creation, economic growth and poverty alleviation. Small businesses or SMMEs continue to face obstacles in obtaining the finance they require to either start-up or expand. There is also a history characterised by the dominance of large capital-intensive businesses and the continuous neglect of small enterprises.

In an effort to address these challenges, the South African government developed and adopted, in 2004, the Integrated Small Business Development Strategy (ISBDS) in South Africa for over ten years (2004-2014), an economic strategy towards the promotion and acceleration of entrepreneurship and small enterprises as a means for long-term employment generation, stimulating economic growth, poverty alleviation and creating sustainable livelihoods (Department of Economic Development 2010; Department of Trade and Industry 2003). The ISBDS builds upon the definition of the small business and embraces all small, micro and medium-sized enterprises (SMMEs). This is an endeavour to target different segments of enterprises or businesses to stimulate entrepreneurship through, among others, financial support initiatives such as the establishment small enterprises financing schemes like Khula Enterprise Finance and the South African Micro Finance Apex Fund (SAMAF) (discussed in the section below), regulatory reform and access to appropriate skills.

The Small Enterprise Development Agency (SEDA) was established in December 2004 under the Department of Trade and Industry in terms of the National Small Business Amendment Act to provide business development and support for micro/small enterprises through development support programmes and has branches and Enterprise Information Centers and Technology Support Incubators in some of the Provinces (The Small Enterprise Foundation 2012). SEDA itself does not have branches in all the Provinces, for example, in Gauteng. Not even a single Enterprise Information Center exists in other Provinces like Gauteng. The challenge though is that SEDA does not lend money itself and its special focus is cooperative enterprises and not small or micro enterprises. SEDA provides non-financial support services such as business registrations, training, mentoring, and business planning.

In an attempt to provide support to micro finance institutions, two wholesale financing agencies, the Khula Enterprise Finance Limited and the South African Micro Finance Apex Fund (SAMAF) were established. Khula Enterprise was established and incorporated in 1996 to develop the underserved segments of small and micro enterprise (SME) sector's access to loans, start-up or early expansion capital mainly through aligning with commercial banks, specialist funds and provides capital to the Retail Financial Institutions (RFIs) which in turn loan to the SMEs with substantial low interest rate (Khula Enterprise Finance Limited 2010/2011). The challenge is that Khula Enterprise Finance does not directly lend money but helps small and medium enterprises (SMEs) to obtain loans. It increases access to finance to SMMEs through financial intermediaries and provides mentorship to the enterprises (Khula Enterprise Finance Limited 2010/2011). Khula, in its 2010/2011 Annual Report, acknowledged its weaknesses and market failure in reaching all the SMEs that require business finance

to start or expand their enterprises. Bad debts incurred by various RFIs were cited as some of the contributing factors.

In 2006, the South African Micro-Finance Apex Fund (SAMAF) was established to provide affordable finance to micro enterprises. Like Khula Enterprise Finance, SAMAF does not provide finance directly to micro enterprises but pilots its apex developmental micro-financing fund model, utilising community-based financial intermediaries like financial institutions, the Financial Service Cooperatives (FSCs) (with a minimum of 150 members) and Micro Finance Institutions (MFIs) to extend their financial services and capacity building, to encourage the mobilisation of savings by the small/micro enterprises and the poor in the rural communities. This does not solve the problem of finance because the MFIs' loans are not accessible due to collateral as a requirement to access such finance. The loans are only accessible to the employed. FinMark Trust and the Centre for Microfinance (2009) found that Khula Enterprise Finance's provision of finance to smaller institutions failed due to the perpetual undercapitalisation of such institutions by its small short-term grants and slow approval and disbursement cycles.

In view of the above, effective strategies, initiatives or institutions that are proficient in improving access to financial needs of small businesses, the SMMEs, are essential in order to assist them in achieving the ability to create self-employment that will uphold the economic activities necessary for their continued existence. However, the lack of access to finance due to collateral constraints, high transaction costs and information asymmetries still present themselves as the greatest obstacles that hinder the performances and growth of small businesses. Burke and Hanley (2002) point out that whether or not financial institutions can choose to lend to lower risk ventures depends, among other things, on the availability of physical collateral and the degree of information existing between the institution and borrower. The lack of information about abilities and character of small businesses as borrowers, their creditworthiness, together with lack of collateral, increase transaction costs and this provides constraints in providing small loans. Financial contracts (lending and borrowing) need the assessment of various probable specific, systematic events and probable states that emphasize the importance of the distribution of information among the parties acting in the financial sector. This is demonstrated by the commercialised and viable existence of a whole different range of institutions like banks, credit agencies and individual credit references and the use of mechanisms like collateral as well as history of default, all playing a pivotal role in financial contracts. The limitations on human knowledge or ignorance hamper informed decisions-making especially by the banks (lenders) and efficient pricing with high costs to enforce contracts in the end (Stiglitz and Weiss 1981; Bernanke 1980). This means that it is difficult and costly for the lenders/banks to acquire initial information about the intentions and behaviour of borrowers and also to secure repayment after a transaction has been concluded. When a bank grants credit, it means allocating estimated risks of nonpayment based on a borrower's repayment capacity to meet his obligation under the loan contract (Song 2002). Collateral then becomes a requirement for a bank in case a borrower defaults. The absence of contracts simply means borrowers fail to meet banks' collateral requirements even if they (borrowers) have assets but which banks would have difficulty accepting as collateral. Banks then hesitate to lend to people whose repayment capacity seems uncertain, risky and unprofitable. The risk of any decision is therefore incalculable as it may arise in a situation where all plausibly available information fails to give even a sense of the risk (Stiglitz and Weiss 1981).

Furthermore, the above-mentioned institutions providing support to small businesses/enterprises operate in isolation and this creates duplication and overlap of some services. It is further argued that although micro finance institutions offer an essential financial service in the economy, there is no sufficient support or relevant strategies from government for these institutions to support small businesses. Information on these services is not effectively disseminated to all township and rural communities but overconcentration and focus tend to be in areas deemed more conducive for operations (Mashigo and Schoeman 2011).

Many countries around the world, for example, India, and researchers, however, have a different view regarding collateral. Although collateral may be considered a requirement for credit, experiences around the world (Fleisig 1995; The World Bank 2012; Fernando 2012; Song 2002) suggest that lack of collateral or asset ownership does not necessarily mean that there is a high risk of default on loans and have proved that it is possible to provide loans to borrowers such as small enterprises without collateral. The researchers are of the view that practically, collateral may not be the solution to transactional economic problem when such collateral becomes illiquid (difficult to value, convert into cash, size or foreclose especially during periods of financial distress) and ultimately costly. Even more critical is when a loan is impaired and primary sources of repayment

which a borrower uses become inadequate. In this case, collateral does not benefit the bank/lender. This refutes the assumption that loan risk is inversely related to asset/collateral ownership. Various schemes, financial institutions and approaches of security related to loans have been found in India and which effectively finance, support and develop small businesses and successfully tackling the problem of collateral.

Small Business Development in India: Findings and Discussions

The paper attempts to identify approaches and schemes that underlie successful international best practices to tackle the problems that hinder small businesses from accessing credit and developing. Alternative initiatives to conventional banking practices are found in India, which had demonstrated that it is possible to grant loans to borrowers who and small businesses which do not possess collateral or valuable assets (Food and Agricultural Organisation (FAO) undated; Sinha 2009). This refutes the South African notion that collateral constraints and high transaction costs make it difficult for the financial institutions to quantify risk. Against this background, a rethinking to conventional banking and micro finance practices is evident and an examination of other approaches and schemes as strategies for developing small businesses is necessary. India has different views regarding collateral requirements in loan contracts and uses specialised and dedicated financial institutions and schemes to finance, support and develop small businesses.

The Indian Financial Sector

Like South Africa, banks in India, act as financial intermediaries to minimise transaction costs through enjoying economies of scale by aggregating uncorrelated demand (Bisman and Goela 2010). The expansion of financial services in India started with the nationalisation of all banks during the late 1960s, and to reinforce this, the Regional Rural Banks were established in 1976 to direct credit (Sinha 2009). Directed credit then became the focus of the Indian financial sector with the purpose of meeting the financial needs of the rural sector in general and the poor in particular. However, the financial position of the rural banks deteriorated and were unsuccessful due to, among others, mismanagement and corruption of government officials (Sinha 2009). Extensive misappropriation and misutilisation of funds impacted negatively on the directed credit.

In an effort to remedy the situation, development initiatives were taken to improve the provision of credit and to promote more equitable levels of development. Development banks were initiated, sponsored by government of India and funded by central banking institutions (i.e The Reserve Bank of India), some private and other public financial institutions (International Development Finance Club 2011). The distinguishing feature from conventional banks is that development banks do not take deposits from customers and this limits their ability to effectively provide funding. Among development banks operating in India is the Small Industries Development Bank of India (SIDBI) which purpose is to promote, finance and develop micro, small and medium enterprises (referred to as MSME) sector (Reddy 2012; Ministry of Micro, Small & Medium Enterprises undated; International Development Finance Club 2011).

The Indian Micro Finance Sector

Micro finance in India was introduced in the 1980s with an objective to reduce poverty. The establishment of the micro finance sector was to deal with the problems of non- availability of timely and adequate credit at reasonable interest rate to micro, small and medium enterprise sector as well as the poor segments of the population (Ministry of Micro, Small & Medium Enterprises undated). Like South Africa, one of the major causes to non-availability of bank finance is the high risk perception of lending to SMMEs/MSMEs and consequent insistence on collaterals which most of these enterprises do not have. The problem becomes more serious for micro enterprises requiring small loans. Banks generally hesitate to provide small loans due to the high transaction costs of administering such loans (Mashigo and Schoeman 2011; Murdoch 1999). Despite the decline in the incidence of poverty over the years (around 2000), wide disparities continued to prevail in the poverty levels in India (Food and Agricultural Organisation undated).

The micro finance institution and/or programmes in India are not subjected to regulation and supervision as they are registered as Societies or Trusts and this non-regulation had detrimental effects in that these institutions are unable to access funds from the financial sector (International Development Finance Club 2011).

Micro finance institutions, however, gained momentum when they received support from SIDBI through the SIDBI Foundation for Micro Credit (SFMC) in 1999 (Food and Agricultural Organisation undated, Bisman and Goela 2010). SFMC, SIDBI and Credit Guarantee Fund Scheme for Micro and Small Enterprises, which are important initiatives taken by India to develop small, medium and micro enterprises are discussed in detail below.

Small Industries Development Bank of India (SIDBI): An overview

In an effort to generate employment and contribute to economic growth, India explored the role of small businesses/enterprises and started to take initiatives to develop these enterprises. According to Department of Financial Services (2010), micro, small and medium enterprises (MSMEs- popularly known as SMMEs in South Africa), contribute significantly to the national economy in terms of production, employment and exports. Small Industries Development Bank of India (SIDBI) was therefore established in 1990, under an Act of Indian Parliament, as the principal financial institution for the promotion of micro, small and medium enterprises (MSMEs) sector and for coordination of the functions of the institutions engaged in similar activities (Department of Financial Services 2010; Small Industries Development Bank of India 2012). SIDBI is owned by 31 public sector banks and financial institutions and is under the control of Ministry of Finance and regulated by Reserve Bank of India (RBI). The Bank (SIDBI), in this case, provides refinance support through a network of eligible member lending institutions such as scheduled commercial banks and selected Regional Rural Banks which are sustainable and few development finance corporations, for onward lending to MSMEs and direct assistance is channelised through the Bank's branch offices. SIDBI promotes employment oriented industries especially in semi-urban areas to create more employment opportunities. Other important activities of SIDBI are the extension of financial assistance in the form of loans, grants, equity and quasi-equity to non-government organisations (NGOs), the micro finance institutions (MFIs) for on-lending to micro enterprises and the poor/weaker sections of the society to help them engage in income generating activities on a sustainable basis (Sinha 2009; Small Industries Development Bank of India 2012). SIDBI had, in 2012, an asset base of over US \$12 billion and earned net profit of US \$ 100 million.

In addition to SIDBI's activities as the prime lending institution, refinance became an important initiative of uplifting MSMEs. The Bank initiated various schemes to further channel funds to small, medium and micro enterprises and the poor and to deal with collateral problems.

Credit Guarantee Fund Scheme/Trust For Micro and Small Enterprises (CGMSE)

Availability of credit without the hassles of collaterals or third party guarantees has been found to be a major source of support in countries like India to new and existing small enterprises through setting up a specialised unit (scheme) of their own small, small and micro and enterprises (MSMEs).

The government of India launched the Credit Guarantee Fund Scheme For Micro and Small Enterprises (CGMSE) in 2000 to strengthen credit delivery system and facilitate the flow of credit to the enterprises by making available collateral-free low-cost credit to micro and small enterprises. This is an important initiative which differs from those of South Africa. As alluded to above, in South Africa, lack of collateral becomes the problem of inaccessibility to finance or credit by small enterprises. Whether or not financial institutions can choose to lend to lower risk ventures like these enterprises depends, among other things, on the availability of physical collateral. Under the Credit Guarantee Fund Scheme For Micro and Small Enterprises in India, are eligible lending institutions such as selected rural banks, scheduled commercial banks and development financial corporation (Ministry of Micro, Small & Medium Enterprises undated, Reddy 2012). Since 2010, there were 112 eligible micro lending institutions under the scheme providing finance to micro, small and medium enterprises. Credit facilities include both term loans and working capital facility extended to new and existing micro, small and medium enterprises (MSMEs) without any collateral security or third party guarantee (Sinha 2009; Small Industries Development Bank of India 2012). A very crucial and important observation is that India protects the small industries and members of society from being trapped in a debt spiral. In this case, an important requirement under the guarantee scheme is that the credit facility is availed by the borrowing unit from a single lending institution.

Under the scheme, is the guarantee cover to the extent of 75% of the amount of the sanctioned amount of the credit facility and 80% for loans to micro enterprises. This guarantee cover is used to settle the loans (up to 75% or 80% where applicable) in case of default. The guarantee fee payable under the scheme is 1.5% and a very small service fee of 0.75% on the credit facilities sanctioned (Ministry of Micro, Small & Medium Enterprises undated). In an effort to create greater awareness about the guarantee scheme among micro and small enterprises, banks, industry associations, other stakeholders and the public, the scheme awareness programmes have been developed through multi-channel approaches like posters and mailers, print and electronic media, workshops and seminars, exhibitions and meetings at various districts or areas. In addition, training is provided to micro lending institutions about operational modalities of the scheme (Small Industries Development Bank of India 2012; Sinha 2009).

Similar approaches are found in Canada and Spain. For example, government loan guarantees play an important role as security/collateral for loans. Such guarantees though have to be signed by appropriate authorities (eg government and private bank) and their value depends on terms and conditions of such guarantee and the creditworthiness of the issuing bank (Song 2002). Government loan guarantee was found to be an effective approach that serves as substitute for the borrower's collateral as the government makes the loan and the risk of the borrower defaulting is shifted to the government (Fleisig 1995). To improve repayments, government minimises the extent to which it is requested to honour its guarantees (Fleisig 1995). The minimisation of guarantees, according to Song (2002; Fleisig 1995) have been successful.

SIDBI Foundation for Micro Credit (SFMC)

SIDBI Foundation for Micro Credit (SFMC) was launched by the Indian government in January 1999 for channelling funds to the poor in line with micro credit schemes. SCFM is the apex wholesaler for micro finance in India providing a complete range of financial and non-financial services such as loan funds, granting of support, equity and institution building support to the retail micro finance institutions (MFIs) so as to facilitate their development into financially sustainable entities. The SFMC plays an increasingly important role in providing user-friendly formal financial services to the poor due to the failure of the main poverty alleviation programme in India- the Integrated Rural Development Programme (Sinha 2009; Chakrabarty 2011). In practice, SFMC acts as an oversight over MFIs which are intermediaries between the retail borrowers consisting of poor people and individual borrowers living in rural areas or urban slums and the public sector development finance institutions. The purpose of SFMC is to create a national network of strong, viable and sustainable micro finance institutions from the informal and formal financial sector to provide micro finance/credit services to the poor and small enterprises (Small Industries Development Bank of India 2012;Chakrabarty 2011).

As alluded to above, micro finance institutions in India are not subject to regulation and supervision, however, SFMC plays a significant role in advocating appropriate policies and regulations and acts as a platform for exchange of information across the institutions. SFMC upscale the flow of micro credit with enabling policy modifications relating to simplification of the procedures in availing assistance and substantial relaxation in the security/collateral (Chakrabarty 2011; Small Industries Development Bank of India 2012). However, this posed serious challenges to the SFMC. These challenges were dealt with by implementing the rating system of the borrowing institutions to meet the requirements of the revised dispensation which called for selection of suitable micro finance institutions which could use collateral-free approach. Capacity Assessment Rating (CAR) was therefore introduced as a supplementary tool to assess the risk perception of MFIs. Creditworthiness is based on the rating of the borrowing institutions rather than availability of security/collateral requirements. In an effort to alleviate poverty and improve livelihoods, the MFIs may on-lend directly to self-help groups (SHGs). The group system is used by MFIs in India to distribute finance to their clients. Group lending has been pioneered by Bangladesh and found to be successful in eliminating the problem of collateral. Food and Agriculture Organisation (undated; Fleisig 1995) found that many poor and very small enterprises around the world had difficulty making savings and accessing loans due to collateral constraints. Group lending approach was popularized by Bangladesh, through its specialised bank, the Grameen Bank, where community members voluntarily form informal small groups (Johnson and Rogaly 1997; Rahman 1997) which are used as social technology to access credit and mobilise savings. Evidence shows that the Grameen Bank used unconventional banking practice to lend money to the poor and/or very small businesses with a reasonable degree of financial self-sufficiency and repayment rates (Rahman 1997; Mashigo 2007; Mashigo 2012). Group members are

encouraged to contribute amounts of savings into a Bank account which (savings) is then used as collateral for loans. In this case, credit is granted to borrowers who comprise small groups while using joint-guarantees.

Within the self-help groups in India, community members, especially women, gain a sense of self-respect and confidence from a collective sharing of experiences and common action. Community members become increasingly involved in joint-enterprise management. These joint-enterprises are financially supported by MFIs and generate joint-income which helps to alleviate the income burden on men and women and contributes towards the drive from poverty. India has vigorously promoted the self-help group system which continues to be used for financial intermediation by both commercial banks and MFIs.

In an effort to alleviate poverty and improve livelihoods, the government of India provides funds for micro finance programmes to SIDBI (Small Industries Development Bank of India), called portfolio risk fund (PRF), which became operational since March 2004. The PRF is used for security deposit requirement of the loan amount from the MFIs or non-governmental organisations (NGOs) and to meet the cost of interest loss (Samal 2012). According to Bhavan (2004), SIDBI takes deposit equal to 10% of the loan amount. The government provides the needed funds (PRF) on half-yearly basis depending on demands for security deposit. The share of MFIs amounts to 2.5% of the loan amount (i.e 25% of security deposit) and 7.5% (75% of security deposit) would be adjusted from the funds provided by the government (Bhavan 2004).

The SFMC impacted positively to the India's community in that some reduction on the dependency on the informal sources of finance like moneylenders was noted. These informal sources were reported to charge exorbitant amounts of interest, for example, 36% and sometimes up to 200% for short-term loans (Food and Agriculture Organisation undated; Karlan 2007).

While the above approaches and schemes have proven to be successful in India, it is important to mention that they would not automatically work in South Africa but have to be carefully considered and can be instrumental in improving access to credit to small businesses in South Africa thereby helping these businesses to develop and grow. This needs the creation of an enabling policy environment with the support of policy makers, government and other stakeholders.

CONCLUSION AND RECOMMENDATIONS

This paper assesses the development of small businesses in South Africa and analyses some best practices and lessons from countries like India to determine how small businesses are supported. While it is evident that strategies initiated by government to finance, support and develop small businesses in South Africa are ineffective due to, among others, collateral constraints and high transaction costs, the paper demonstrates that specialised and dedicated financial institutions and schemes that have been established in India are successful in financing and developing small businesses. It is evident that collateral may not practically be the solution to transactional economic problem when such collateral becomes difficult to value.

There is no doubt that the development of some specialised financial institutions such as the Small Industries Development Bank of India (SIDBI) through its unique schemes like Credit Guarantee Fund Scheme for Micro and Small Enterprises and SIDBI Foundation for Micro Credit (SFMC) are important initiatives taken by India to develop small businesses. In addition to these, approaches such as the group system used by India's micro finance institutions (MFIs) to distribute finance to the community and/or small businesses have been found to play an important role in providing credit through removing the need for collateral.

There are lessons to be learnt from India's best practices which demonstrate that it is possible to finance, support and develop small businesses. Based on the findings, the paper recommends the need for South Africa to consider establishing dedicated financial institutions or a bank that will specifically cater for the financial needs of small businesses rather than to introduce a series of strategies or institutions that fail to support small businesses.

The same approach of assisting the poor and small businesses through the adaptation of the group lending system is essential if South Africa needs to improve their support and development. The joint-enterprise management and the joint-income generated by community groups have been proven by India to be successful in

soliciting finances from the MFIs and contributing towards the drive from poverty. The adaptation of the group system can be instrumental for South Africa. In this case, the formation of groups which, small businesses can become part of, can help in mobilising savings to be used as collateral for credit. Loans/credit can then be applied for where the group members become jointly liable for repayment of such loans.

Furthermore, it is recommended that South Africa develops strategies to support micro finance institutions (MFIs), empower them and enable or use them as effective financial delivery vehicles to communities and/or small businesses in an effort to develop them, generate employment and contribute to economic growth.

It is important to mention that the approaches and schemes, though successful in countries like India, have to be carefully considered in South Africa and can be instrumental in developing small businesses. To achieve this needs the creation of an enabling policy environment with the support of policy makers, government and other stakeholders. The financial support for small businesses has to be seriously considered and intensified through effective and tailor made policies and the distinction has to be made between different kinds of enterprises, the small, medium and micro enterprises before such support can be provided and policies implemented and not only use general strategies for all of them.

REFERENCES

- AfricaFocus Bulletin. (2004). South Africa: Poverty debate. AfricaFocus
- Bhavan, N. (2004). Scheme of Micro Finance Programme. India: Small Industries Development Bank of India
- Bernanke, B.S. (1980). "Irreversibility, Uncertainty and Cyclical investment", *NBER Working Paper*, 502.
- Bisma, J. & Goela, N. (2010). The Small Industries Development Bank of India: A retrospective on SME financing. India: Gale, Cengage Learning
- Burke, A. & Hanley, A. (2002). How do banks pick safer ventures? Theory and evidence of the importance of collateral, interest margins and credit rationing. Economic Division Working Paper Series N. 02-2002, Nottingham University Business School
- Chakrabarty, K.C. (2011). Microenterprise development: Path to creating MNCs of tomorrow. India: Reserve Bank of India
- Department of Economic Development, (2010). Gauteng SMME Policy Framework (2010-2014). Republic of South Africa: Gauteng Provincial Government.
- Department of Financial Services. (2010). Overview of Small Industries Development Bank of India and its activities. India: National Informatics Centre
- Department of Trade and Industry, (2003). White Paper on National Strategy for the Development and Promotion of Small Business in South Africa. Parliament of the Republic of South Africa
- FinMark Trust & the Centre for Microfinance. (2010). A review of the South African Microfinance sector, 2009 successes, challenges, and policy issues. Pretoria: University of Pretoria
- Food and Agricultural Organisation (FAO). (undated). Promotion of sustainable commercial aquaculture in sub-Saharan Africa. United Arab: Fisheries and Aquaculture Department.
- Food and Agricultural Organisation (FAO). (undated). Livelihood and micro-enterprise development opportunities for women in coastal fishing communities in India, Case studies of Orissa and Maharashtra. India
- Fernando, P. (2012). Movable Assets as Collateral. Sri Lanka: The Sunday Leader

- Fleisig, H. (1995). *The Power of Collateral*. Washington D.C: Private Sector Development Department
- International Development Finance Club. (2011). *Small Industries Development Bank of India*. India
- Isern, J. & Porteous, D., 2005. *Commercial banks and micro finance: Evolving models of success*. Focus Note
- Johnson, S & Rogaly, B. (1997). *Micro finance and poverty reduction*. London: Oxfam and Action Aid
- Karlan, S. (2007). *Social capital and group banking*. MIT Department of Economics
- Khula Enterprise Finance Limited. (2010/2011). *Enhancing growth, Annual Report*. Pretoria: Department of Trade and Industry
- Mallya, K.G. (2005). *Micro finance in macroeconomics*. India
- Mashigo, M.P. (2007). *Extending Credit to the Low-income and Poor Households in South Africa: A System of Principles*, A Doctoral thesis submitted at the University of Johannesburg, Department of Economics and Econometrics.
- Mashigo, M.P (2011). *Group Lending: A mechanism for Delivering Financial Services to the Poor Households: Lessons for South Africa*. Paper presented at the Thirteenth Annual International Conference of Global Business and Technology Association (GBATA), Turkey, Istanbul, 12-16 July 2011
- Mashigo, M.P (2012). *Non-collateral approaches to developing survivalist enterprises in South Africa: International best practices*. Paper presented at the Fourteenth Annual International Conference of the Global Business and Technology Association (GBATA), USA, New York, 10-14 July 2012
- Mashigo, M.P. & Schoeman, C. “Microcredit and the transforming of uncertainty since 1976: International lessons for South Africa”, *New Contree Journal, A Journal of Historical and Human Sciences for Southern Africa*, Vol. 62, (2011):149-176.
- Ministry of Micro, Small & Medium Enterprises (MSME). (undated). *Credit Guarantee Fund Scheme for Micro and Small Enterprises*. Available from <http://www.dcmsme.gov.in/schemes/sccrguarn.htm> (Accessed on 19 February 2013).
- Murdoch, J. “The Microfinance Promise”, *Journal of Economic Literature*, Vol. 37, No.4, (1999): 1569-1614.
- Qua-Enoo, G.A. (2001). *Uplifting the informal entrepreneurs to mainstream business enterprises*. Eastern Cape Technikon, Department of Accounting
- Njiro, E. & Compagnoni, M. “Institutions providing services to Small, Micro and Medium enterprises (SMMEs) in South Africa”, *Journal of Contemporary Management*, Vol. 7:146-166
- Rahman, S. “Finance for the needy”, *UNESCO Courier*, Vol. 50, No.1 (1997): 17-22. Academic Search Premier
- Reddy, P. (2012). *What are the main functions of Small Industries Development Bank of India?* India: Preserve Article for Eternity
- Samal, S.A.R. (2012). *Study on enhancement practices- Institutional lending to MFIs- Role and impact of Portfolio Risk Fund*. India: Small Industries Development Bank of India
- Sinha, F. (2009). *State of microfinance in India*. India: Institute of Microfinance
- Small Industries Development Bank of India. (2012). *History of Small Industries Development Bank of India*. India.

- Smit, P.C., Dams, D.J., Mostert, J.W., Oosthuizen, A.G., Van Der Vyver, T.C. & Van Gass, W. (1996). *Economics: A South African perspective*. South Africa: Juta & Co, Ltd
- Song, I. (2002). *Collateral in Loan Classification and Provisioning*, IMF Working Paper (WP/02/122). International Monetary Fund
- Southern African Development Bank, (2005). *Overcoming underdevelopment in South Africa's second economy*. South Africa: Development Report
- Stiglitz, J.E. & Weiss, A. "Credit rationing in markets with imperfect information" *American Economic Review*, Vol.71 (1981): 393-409
- The Small Enterprise Foundation. (2012). *The Small Enterprise Foundation freeing the world of poverty*. South Africa: GiveWell
- The World Bank, (2012). *Getting Credit Methodology*. Washington, DC: The World Bank Group
- Van de Ruit, C. (2001). *Micro finance, donor roles and influence and the pro-poor agenda: The case for South Africa and Mozambique*, Draft paper, Donor funding conference
- von Broembsen, M. (2003). *Poverty alleviation: Beyond the National Small Business Strategy*. South Africa: Institute for Social Development, University of the Western Cape
- Zingoni, T.S. (2010). *Microfinance industry in South Africa – A review of the sector*. South Africa: University of Stellenbosch, Articlebase.

CHANGE MANAGEMENT: ABSOLUTIONS ON LABOUR CHALLENGES – AN EXPLORATORY FUTURISTIC APPROACH TO UOTS

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ABSTRACT

Since the merger of institutions of high education in South Africa (SA) took place in 2004, Universities of Technology (hereinafter referred to as UoTs) seem to have been the most hit by a process of change. The whole mystery of this transitional change process was essentially transformational strategy from the so-called ‘match and place process’ that was to be adopted in the form of global restructuring within UoTs. The match and place process in turn brought with it a whole bunch of intolerable labour related repercussions that ‘broke many hearts’ within the respective workplaces of the UoTs. Against this background, it would appear that there are still a way too many challenges that trigger dissatisfaction amongst employees in workplaces within these UoTs against the labour justice on employees, particularly on skills development. Arguably, in situations given, it would normally mean that there are numerous provisions in terms of the SA labour legislation that are violated against employees an example of which is Skills Development Act 97 of 1998. The question now is; for UoTs to avert this state of affairs what else should then be done?

INTRODUCTION

Since the merger of institutions of high education in South Africa (SA) took place in 2004, Universities of Technology (hereinafter referred to as UoTs) seem to have been the most hit by a process of change. The whole mystery of this transitional change process was essentially transformational strategy of a so-called ‘match and place process’ that was to be adopted in the form of global restructuring within UoTs. The research problem to be addressed is ‘the challenge of ignoring skills development rendering UoTs incompetent by defeating the ends of labour justice’. It is thus the purpose of this qualitative research paper to explore and illuminate possible violations by tabulating the observations, discussing them and then providing suggested solutions.

METHODOLGY

The research problem to be addressed is ‘the challenge of ignoring elements rendering UoT incompetent by defeating the ends of labour justice’. It is thus the purpose of this qualitative paper to explore and illuminate possible violations by interpreting Skills Development Act and apply it to the research problem. To arrive at the solution, these will coherently be contextualised with organised literature within this context demystifying institutional aftermaths of change management. Longitudinal observations will be tabulated providing discussions and suggested solutions. In this way the tabulated suggested solutions will indicate indeed that for UoTs to utilise productively their human resources as human capital successfully, then they have to rethink and consider developing skills as transformational strategy.

THEORETICAL FOUNDATIONS

The solution to the research problem will be triangulated first, through organized literature. Second, it will be shown through longitudinal observations at the Tshwane University of Technology (TUT), as sample of the

research target population of the UoTs. Third, the application of Skills Development Act 97 of 1998 as amended (Alas, 2007), as tabulated in Table A below. Following is table that shows the observations, discussions and suggested solutions.

Tabulated Observations, Discussions and Suggested Solutions

Table I: Empirical Outlook on Snap interviews Conducted at TUT in Collaboration with the Case Study (Lehobye, 2012)

No.	What the Researchers Set Out to Expose	Analyses	Suggested Solutions
1	A Senior Manager manipulating HR processes to employ his own wife and Son in his own department.	This comes out to be what uses to be known as nepotism. Nepotism is a situation where an employee in the position of power employs his/her closest family members disregarding the set policies whether they have all what it takes to qualify for such positions or not. This is normally an actionable 'offence' and yet nothing is said to have been done.	In situations like the given, any reasonable senior manager should have known that the act of nepotism is actionable in which case he or she would not have any justification whatsoever but to step down and be removed from all his or her contractual rights and duties.
2	Senior Managers who scrap university computers before time just to benefit their own homelands.	The observation made in TUT indicates that new computers would only be rendered obsolete after a period of three years of their use within the University. Removing them before this time to benefit some homelands at the expense of the others is not just unfair but actionable 'offence'.	Senior manager in this case should step down. The reason is if the senior manager really feels the need for computers for his own home-land should go through procedures for considerations of donations or buy these computers at an auction held at TUT from time to time. Every senior manager is expected to have reasonably known this.
3	University Council Cabals appointing a candidate with Fraudulent Qualifications.	This statement is not an easy one. One will have to understand what 'fraudulent' here mean. Fraudulent, according to the Dictionary means obtaining undue benefit after having misrepresented true facts about something knowingly to be deceitful.	If the alleged fraud was indeed found to have been committed by a competent organ of state such as South African Qualifications Authority (SAQA) and such fraudulent qualifications were indeed used to earn undue benefits, these benefits should forthwith be frozen, including any property so acquired, all entitlements stripped off and criminal charged pressed against such a perpetrator. On verifying older documents already submitted, documents that are 20 years or more are admissible pursuant to the ancient document rule.
4	University	The university management	As the contract is already

	Management signing a contract for residences in Pretoria North and Polokwane without conducting physical inspection only to discover that the buildings there were in a mess. (No action was taken against those members).	before signing should have first satisfied itself about the condition of the residences justify this according to the current market condition of such residences.	concluded, meaning that the university management is fully satisfied even if the residences are so dilapidated, contractually, nothing at this stage can be done as a remedy to that. It is only from the side of the university to take corrective action to its members. Corrective action may indeed mean stepping down.
5	Students relocated from a residence where they were paying R16000 per annum to the one where they are paying R29000. (No one has been taken to task for such action).	There is no student on earth who can just choose to pay R29 000 instead of R16 000 per annum. Although the reason speaks for itself but the difference of R13 000 is indeed too exorbitant to imagine for a any student budget.	What should actually happen here is simple. If this was the first offence on the part of this perpetrator, and the investigations indicated that there was some kind of human error involved where this situation could be corrected, he or she should pay R13 000 already suffered for each per annum for that long. The level of adavance will then determine whether human error was involved or not. If no such an agreement is reached between the perpetrator and the university, perhaps because of this adavance, the former should just step down outrightly.
6	Former Human Resources Development employee resigns today and the following day works for a company that has a contract with the department that she used to manage. (The matter is treated as normal). The same is happening at Corporate Affairs and Marketing.	The employee seemed to have abused her power to such an extent that even after her resignation she continues or allowed to continue to go away with her own share of legacy. This allowance appears not to end only with Corporate Affairs and Marketing but extends to some other unreported incidents from other departments as well, if a forensic investigation be launched.	This in effect denotes the level of adavance that the employee really enjoyed over her stay at TUT. If this matter is indeed treated as normal like in some other cases in this report, it means there is some kind of a hidden and serious problem. This might be so in that those who have to take a decision and still fail to their hands are so dirty that they cannot handle the situation. The employee who resigned most certainly knows their weak points which, if divulged, can also cause them their jobs. Thorough investigation is necessary to out-root this.
7	People retire today and they are employed next day in the same position as contract employees without	'People' here means more than just one person. Contractually, people should retire at their pensionable age and if retiring	If TUT allows, even if it is just one person to retire today and are employed next day in the same position as contract employees without following

	<p>following due processes. (This is seen as a normal practice).</p>	<p>prematurely and are allowed to do so, a precedent is set and TUT may not be able to have that situation under control in any manner even if a collective agreement can be reached.</p>	<p>due processes, the same principle should apply to everyone. It will just be a petty that this cannot be reversed. In cases like this, a technology called Originate e-Contracting as described (cf Cp 6, below) can sort this where it would just automatically determine pensionable age and when that comes, automatically stops the employee from receiving monthly salaries but just a once off lump sum. It is not as if these managers do not know these technologies, they are just adamant to implement technologies from which they will not benefit. In most cases it would seem that it is just the question of self enrichment.</p>
8	<p>A Senior Manager who defrauded the university through short courses is allowed to resign without facing the music. The next day the same person is appointed in another university in the same position...</p>	<p>This situation here implies that most senior managers seem to take the departments that they manage for their own laurels in which they would just do almost anything as they wish. Short causes should be approved by the university council and the DoHE.</p>	<p>This is one of such cases of self-enrichment. After resigning from the university and next day on the same position, he is employed by another, means that fraud has been committed through someone providing things such as false testimonials in the name of TUT. The new employer should be made aware so the new employee short be made to step down.</p>
9	<p>Line manager impregnating an administrator... (Nothing is done about it except it being just a rumour).</p>	<p>Impregnating someone as line manager is something that started from sexual harassment which should has been so persistent that it now resulted in pregnancy. It does not just start anywhere. It starts from sexual harassment. Every manager should know, or ought to have reasonably known that sexual harassment at workplace is not only undesirable but punishable.</p>	<p>This line manager should first be investigated to avoid rumours. If this be just an allegation or a mere rumour, it should be determined whether this rumour is a reasonable rumour or not. But most importantly, the line manager's services should first be suspended and DNA tests be insisted on as part of investigations. This should not be seen as just a bold step but is a correct procedure to be followed.</p>
10	<p>The abuse of forensic audit to fight factional battles.</p>	<p>This statement also does not breathe sufficient information and thus a bit difficult to analyse.</p>	<p>Forensic audit when it is an unqualified report should be acted upon because it is tested. Those, against whom it deals and have powers to ignore it, should be taken to task. In fact, any manager may not refuse any tested reality and once you</p>

			do means somehow you are already guilty yourself and such an adamant power abuser does not belong with academia.
11	Collusion between line managers to disadvantage workers.	Yes, some line managers are fair while others are really not. When there is collusion between them, what takes precedent should be policies. Policies too many TUT managers thus far, especially those working against them, are never construed as policies, not to speak about when they turn to favour their subordinates.	To put subordinates at a disadvantage is the duty in most cases of those managers who do not always have suitable qualifications and thus try by all means to do things that will render those hardworking well qualified subordinates incompetent. Even any effort of good work by subordinates is never considered. These managers should be excluded from the ranks of management until they produce documents not only of their required qualifications per se, but those documents that will show what achievements they earned during their tenure of office. Failure in this regard should be the basis of the demotions not with the same salary and such managers should with immediate effect be identified and be dealt with accordingly.
12	Manipulation of procurement processes...	This seems to concern self-enrichment.	Those managers abusing these powers should be dealt with rigorously.
13	Academic HOD's selling students their own textbooks which are of inferior standard than what is available in the industry.	Most academic HOD's do not have time to do their academic work, at least according to this report. This is conspicuous in that they spend most of their times doing things that would render their subordinates incompetent also in an attempt to disadvantage them (see bullet 12, above). However, if one of such HODs managed to publish a book, in most cases such books do not align themselves with the current syllabus taught. The policy also stipulates that such books do not have to be made available for sales to students.	There is already a precedent in TUT where an academic HOD sold his books to students against the TUT policy and the academic on this realization was forthwith sacked (see Administrator Report, 2011). The same precedent should also apply here.
14	SRC members registering without attending classes while	Every student should attend their classes from the beginning to the end of all	There is indeed a reality behind the fact that student representative council is a body

<p>the university is paying for their fees.</p>	<p>the terms. According to the TUT student Rules and Regulations, every student should have at least 85% of continued attendance for them to qualify for the exam entry.</p>	<p>of student managers who are also part of the university stakeholder-ship. These managers should engage in student affairs and participate in the university activities that concern students directly. Where do these students have that time in their hand? This is the university that is entrenched in the use of technology. According to Kekwaletswe (2007) and Lehobye & Ndung'u (2012), technology can be used outside classes to close this gap.</p>
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Table A above, is an extraction from Lehobye (2012) working Thesis that collaborates with the longitudinal observations made within a period of two years from 2010 to date. It encapsulates most observations that are contrary to the aims of the Skills Development Act almost entirely. Harvested from Lehobye (2012) working Thesis, they were in turn derived from NEHAWU Report (2012) directed to the TUT Administrator. Looking at these observations as discussed, it would be realized that if these are not sorted out in time, these universities will indeed, in no uncertain terms, collapse before the end of the decade. Following are the aims of the Act 97 of 1998 to be applied to this paper's research argument.

Application of Act 97 of 1998

Following are the aims of the Skills Development Act (Act 97 of 1998), as amended by the Amendment - Skills Development Act - 2003 and Proposed Amendments to SETA's June 2006 the following aims are apparent including:

To provide an institutional framework to devise and implement national, sector and workplace strategies to develop and improve the skills of the South African workforce; to integrate those strategies within the National Qualifications Framework contemplated in the South African Qualifications Authority Act, 1995; to provide for learnerships that lead to recognised occupational qualifications; to provide for the financing of skills development by means of a levy-grant scheme and a National Skills Fund; to provide for and regulate employment services; and to provide for matters connected therewith.

Regarding the observations above it would seem apparent that the above Act appears not to be adequately applied by the UoTs. In order to revive the UoTs back to their expected status, the above aims of the Act 97 of 1998 should be applied with rigour.

CONCLUSION

This paper came up with suggested solution as to how the UoTs would be helped to resuscitate or revive from their present status. The feelings of adamance and arrogance do not belong to academia, so is the nursing of personal whims and caprices at the expense of others by some of UoTs managers. However, what was germane in this paper is proper utilization of human resources at the interest of the employer – the University. It would seem that the UoTs in SA appear hesitant to act upon academically sacrilegious and abominable acts by managers most of whom are even unqualified. The fact is managers are allowed to do as they wish within the UoTs thereby increasing skills development gap delaying the ministerial mandate of academic delivery within the given time frames.

REFERENCES

- Alas, R. (2007). The Triangular Model for Dealing with Organizational Change. *Journal of Change Management*. 7, 3: pp. 255-271.
- Armenakis, A. A. & Harris, S. G. (2002). Crafting a Change Message to Create Transformational Readiness. *Journal of Organizational Change Management*. 15, 2: pp. 169-183.
- Azzone, G. & Palermo, T. (2011). Adopting Performance Appraisal and Reward Systems a Qualitative Analysis of Public Sector Organisational Change. *Journal of Organisational Change Management*. 24, 1: pp. 90-111.
- Bamford, D. & Daniel, S. (2005). A Case Study of Change Management Effectiveness within the NHS. *Journal of Change Management*. 5, 4: pp. 391-406.
- Gill, R. 2003. Change Management or Change Leadership? *Journal of Change Management*, 3(4): pp. 307-318.
- Harris, S. G. & Cole, M. S., (2007). Stages of Change Perspective on Managers' Motivation to Learn in a Leadership Development Context. *Journal of Organizational Change Management*. 20, 6: pp. 774-793.
- Karp, T. & Helgo, T. I. (2008). From Change Management to Change Leadership: Embracing Chaotic Change in Public Service Organizations. *Journal of Change Management*. 8, 1: pp. 85-96.
- Kavanagh, M. H. & Ashkanasy, N. M. (2006). The Impact of Leadership and Change Management Strategy on Organizational Culture and Individual Acceptance of Change during a Merger. *British Journal of Change Management*. 17: pp. 81-103.
- Kekwaletswe, R. M. (2007). *Knowledge Transformation in a Learning Environment: an Interpretive Enquiry of Ubiquitous Context and Social Presence Awareness*. Unpublished PhD degree. University of Cape Town, South Africa.
- Lehobye, N. M. (2012). *Determining Cybernetic FSS Usability MIS-Model on E-Contractual Legal Validity: a Case of SA Universities of Technology*. Working D Tech degree. Tshwane University of Technology, Republic of South Africa.
- Lehobye, N. M. & Ndung'u, M. N. (2012). Time Management Strategy and Performance Appraisal: Exploitation of Podcasting Effectiveness. *The 6th International Business Conference*, Tropical South Coast, Mombasa, Kenya, 27 – 31 August 2012.
- Lyons, J. B., Swindler, S. D. & Offner, A. (2009). The Impact of leadership on Change Readiness in the US Military. *Journal of Change Management*. 9, 4: pp. 459-475.
- Lyons, J. B., Swindler, S. D. & Offner, A. (2009). The Impact of leadership on Change Readiness in the US Military. *Journal of Change Management*. 9, 4: 459-475.
- NEHAWU Report (2012). The University Needs to Cleanse Itself from Unethical Conducts and Immorality.
- Neves, P. (2009). Readiness for Change: Contribution for Employee's Level of Individual Change and Turnover Intentions. *Journal of Change Management*. 9, 2: pp. 215-231.
- Pagon, M., Banutai, M. & Bizjak, U. (2008). *Leadership Competencies for Successful Change Management. A Preliminary Study Report*. University of Maribor, Slovenia, pp. 1-25.
- Shambare, R. (2011). An Assessment of the Effectiveness of Technology Transfer Practices in Supporting Entrepreneurs from the South African Higher Education Sector. *5th International Business Conference*. The Grand Mauritian, Turtle Bay, Mauritius • 26 – 30 September 2011.
- Todnem, R. (2007). Ready or Not. *Journal of Change Management*. 7, 1: pp. 3-11.

Trader-Leigh, K. E. (2002). Case Study: Identifying Resistance in Managing Change. *Journal of Organizational Change Management*. 15, 2: pp. 138–155.

Walker, J. H., Armenakis, A. A. & Bernerth, J. B. (2007). Factors Influencing Organizational Change Efforts – an Integrative Investigation of Change Content, Context, Process and Individual Differences. *Journal of Organizational Change Management*. 20, 6: pp. 761-773.

AMBUSH MARKETING DURING WORLD SPORTING EVENTS: SOME LEGAL AND ETHICAL ISSUES

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ABSTRACT

From time to time countries host big sporting events, including the Soccer World Cup. During these events, businesses fight for space to market their products. Host countries and sponsors therefore usually enter into agreements with the controlling bodies of the events, e.g., Federation Internationale de Football Association (FIFA) in the case of the soccer world cup. These agreements seek to ensure that the parameter within which business is conducted is clear and that there is no ambush marketing during the events. What impact do these rules have on non-sponsors, especially small businesses? Are they unfairly restricted from marketing? The established thinking is that sponsors and sporting controlling bodies are being treated unfairly. The study however here investigates the extent to which the rights of the organizers of big sporting events affect non-sponsors, especially small businesses. The legality and ethics of ambush marketing during these events will also be examined, using various legal and ethical theories, so as to determine the extent of fairness or unfairness of rules protecting the sporting controlling bodies and their partners. The study uses South Africa's recent hosting of the 2010 Soccer World Cup as a case study. South Africa's regulatory framework around ambush marketing is therefore explored. This will provide future guidance for other sporting events. The study, in brief, looks at the regulatory issues, the ethical issues and some ambush marketing case studies, and then provides some recommendations. The study argues for a more balanced approach in the rules governing big sporting events.

INTRODUCTION

Major sporting events like soccer world cups remain some of the wealth generating mechanisms for the holders of the rights, i.e. Federation Internationale de Football Association (FIFA), big sponsors, and host nations. The study is necessitated by the increasing problem of ambush marketing during these major sporting events. Service and other organizations may be the victims of ambush marketing in different contexts. They might be victims of ambush marketing as sponsors, where they spent a lot of money, but those who did not spend a cent take advantage of it. They may also be victims where, as small businesses, they cannot afford to sponsor the event, but are also prevented from marketing themselves during the event. The study seeks to examine this problem. The study argues that the current arrangements during major events are not balanced, and generally favour more resourced companies, which are in a position to sponsor big events. It is therefore the key objectives of this study to examine the different rules and laws governing marketing during major sporting events, more in particular the FIFA World Cup. This examination will create space for a call for legal reform or improvements in the regulations.

BACKGROUND TO THE STUDY AND CONCEPTUAL FRAMEWORK

South Africa recently hosted the world cup, i.e. the 2010 World Cup. This was part of a series of many other world cups hosted by other nations of the world. During the world cup, there were some reports of companies trying to ambush the big event, in terms of marketing. This happens in many other events, big or small. As earlier indicated, the study therefore needs to explore the legal complexities surrounding the activity of ambush

marketing during big tournaments, more in particular, the Soccer World Cup, organized by FIFA after every four years, on different countries. FIFA is the international football controlling body, based in Zurich, Switzerland. FIFA WORLD CUP is one of the largest single sporting events world-wide (see FIFA Rights Protection Programme at the 2010 FIFA World Cup South Africa, FIFA, 2010 at 3, for further discussion). Given FIFA World Cup's mass appeal character, the study focuses more on this event, as the same principles will apply to other similar sporting events with mass appeal, namely World Cricket, Olympics, Rugby World Cup, etc. The discussion is intended for services companies, though most principles will also be applicable for companies selling or marketing goods. Legislations governing the marketing of goods are therefore, where necessary, also looked at.

DEFINITION OF AMBUSH MARKETING

Because the theme of this discussion focuses on ambush marketing, it is here necessary to give a critical examination of the meaning of ambush marketing, and its application in different contexts. The critical examination will be necessary to show what is, or is not, should or should not be, ambush marketing. The 'is and should' combination here will also be talking to law and ethics respectively. Though there might be no precise definition of ambush marketing, most legislations (as will appear below) appear to view it as association, by a non-sponsor, with a particular event, as if the non-sponsor is the sponsor. A survey of some literature, which in the context of this discussion is mainly in the form of legislations, point towards this.

In South Africa Ambush marketing is governed by the following laws, amongst other laws: Trade practices Act 76 of 1976 (though this Act has since been repealed by the Consumer Protection Act 68 of 2008, it was still the applicable Act during the hosting of the 2010 World Cup, so its provisions remain valuable, more so that some of its substantive provisions have been adopted by the Consumer Protection Act and other legislations), Trade Marks Act 194 of 1993, the Merchandise Marks Act 17 of 1941 and other related legislations to be touched on below, to the extent of their relevance. As earlier indicated, the legislations here will not be confined to those governing the marketing of services, but also those dealing with the marketing of goods, as the principles can by adaptation be used also for other categories of marketing. There will also be a brief look at the constitutional position. Before looking at legislations and other laws, it is necessary to first look at ambush marketing practices and strategies.

AMBUSH MARKETING PRACTICES, STRATEGIES AND TACTICS

What do ambush marketers usually do? Despite a number of laws and regulations dealing with ambush marketing, ambush marketers still continue their business. They change strategies and tactics. In a real South Africa case, decided by the Gauteng North High Court, a restaurant started deco rating its surroundings with banners reflecting the different countries participating in the World Cup in South Africa. It also added the name World Cup 2010 to its signage. It took advantage of the fact that it was located near Loftus Stadium, one of the world cup stadiums. It did not have authorization from FIFA. The Court ruled in favour of FIFA (Dean, 2009).

There is also the world publicized story of the Dutch women who wore yellow mini-skirts, bearing Bavarian Beer, into the stadium. Bavarian Beer was not one of the sponsors. The women were also prosecuted (Mail & Guardian, 2010). However, the case involving the Dutch women may have backfired on FIFA and the sponsors. The arrests of the women led to worldwide publicity, which may have benefited the ambush marketer. The sponsors were overshadowed in the publicity that followed.

Other tactics are those used by Nike during the 1996 Atlanta Olympics, which paid for some billboards around the Olympic stadiums before the event (Sportsdoc, 2007). This advertisement gave Nike wide publicity, despite it not being the sponsor of the event. It is difficult to deal with such cases. Though this was not a FIFA event, the problems experienced here are similar to those experienced under FIFA events.

In the three cases above, two involved big companies, while one involved a small company. The small company could not, even if it wanted to be a sponsor, afford to do so. There are many small companies in similar

situations, and some in worse situations than this restaurant. In my view, there is very little justification in big companies directly benefiting from events they are not sponsoring, despite that they have the resources to sponsor. Rules against such companies need to be tougher. It is far easier for the public to confuse the big companies with the sponsors. These companies usually have the market internationally, so for them to associate with the event might take unfair advantage thereof. For a small company, with a very localized presence, there is very little chance that the public can confuse it with a sponsor.

Even in the case of big companies, where the ambush marketing is not direct, like in the Nike Case, it might be unfair to prohibit them. Sponsors do not sponsor so as to own the whole world during the specific event, but only to own certain areas. For them to have very wide-ranging rights might lead to disproportionate benefits, not justified by the sponsorship. Sponsors should, as a matter of fact, understand that even if they have sponsored, this does not entitle them to every benefit available. They have a social responsibility to share certain types of benefits with the public.

AN EXPOSITION AND EVALUATION OF THE REGULATORY FRAMEWORK GOVERNING AMBUSH MARKETING

Trade Practices Act

This Act appears to be the heart of the regulation of ambush marketing (as this Act has since been repealed by the Consumer Protection Act, where necessary, I will indicate the corresponding sections of the Consumer Protection Act, so as to reflect on the current position also). The Act prohibits any false or misleading statement, communication or advertisement representing or implying a connection or association with a particular sponsored event or the sponsor of the event. A person causing such activities to be made is also equally prohibited from doing so (s 9(d)). The subsection therefore has the following requirements:

There must be a false or misleading statement

The reading of the section implies that the statement or communication should be false or misleading. The phrase ‘false’ or ‘misleading’ is relative, and should therefore be read in relation to the second element below i.e. implying association between the person and a particular sponsored event. The new Act, namely the Consumer Protection Act, also has a similar provision. Section 29(b)(iv) of this Act also prohibits the marketing of goods and services ‘*in a manner that is misleading, fraudulent or deceptive in any way, ...*’. This prohibition is in relation to the sponsoring of any event, amongst other things.

Representing, implying or suggesting a connection or association between the person and a particular sponsored event

The requirement here, as provided for in the Trade Practices Act, is that the statement or communication must suggest some connection between the person and the particular sponsored event. This implies that any communication or advert short of this will not be in violation of the Act. Intention appears to be implied as an element here. This means that situations where persons, for their own personal use, wear clothes bearing a particular label might not be seen as violating the Act. On the other hand, where a mass of people do so at a particular event, this might be a pointer towards an intention to mislead. This will however depend on the nature of the event (also see the discussion of the Bavaria Beer ambush marketing case study below).

Causing the prohibited statement to be made

This further requirement under the Trade Practices Act will apply mainly in situations where persons are used by others, mainly big companies, to go and advertise during the specific events. The persons sending the advertisers

will also be held responsible. And so are the participants themselves. Although the Consumer Protection Act does not appear to have an equivalent wording on this, the interpretation of s29 of the Act will not be inconsistent with this requirement.

Trade Marks Act

The Trade Marks Act makes provision for the registration of trade marks. The Act should be read together with other legislations like the Consumer Protection Act (for example, s79 of this Act regulates the use of business names, more especially during advertising. S81 (2) in particular prohibits usage of names that may be confusingly similar to other names, or may falsely imply or suggest some connection with another person or entity). Under the Trade Marks Act, some requirements, as discussed below, need to be met for such registration to take place.

The trade mark must be distinctive i.e. it must be capable of distinguishing the applicant's goods or services from those of another, in the same category (s 9(1)). Other requirements are implied from what is not considered to be registrable trade marks under section 10. Section 10 may prevent a lot of trade marks intended for use during the world cup from being registered. The Act makes it difficult for certain trade marks to be registrable even under a normal situation (outside the periods of big sporting events), might also be difficult to register during, or in anticipation of, the big sporting events. Such marks, as discussed below, are therefore non-registrable.

Section 10 (2) (c) of the Act considers as non-registrable a mark consisting of a sign or an indication which has become customary in the current language, or bona fide and established practices of a trade in question. This may make it difficult for companies that seek to take advantage of the big sporting events, or companies sponsoring the events. Section 10(3) also makes non-registrable a mark in respect of which the applicant has no bona fide claim to proprietorship. Section 10 (4) further makes non-registrable a mark where the applicant has no bona fide intention of using it as a trade mark. For example, where the applicant, anticipating the World Cup, attempts to register marks with the intention to prevent others from registering them, this could be considered non-registrable. Where an applicant makes the application for registration in bad faith, this will be considered non-registrable under section 10(7) of the Act. The same principle applies in case an applicant attempts to register a mark imitating a well-known trade mark under the Paris Convention, as this will be non-registrable under section 10(6) of the Act. This will prevent applicants from taking advantage of well-known trade marks associated with big sporting events. The principle might apply where the intended trade mark contains emblems of an international organization, as this might be non-registrable under section 10(8)(d) of the Act. Lastly, sections 12 to 17 of the Act make a mark non-registrable if it is likely to cause deception or confusion if registered.

The Merchandise Marks Act

The most relevant section of this Act is section 15A, which empowers the relevant Minister to designate a particular event as a protected event, subject to certain conditions as may be appropriate (s15A(1)(a)). Big sporting events like world cups are usually so designated. For an event to be so designated, it must be in the public interest, and that the organizers must have created sufficient opportunities for the benefit of small businesses, more in particular those previously disadvantaged (s15A(1)(b)). During the period of the protected event, no person may use a trade mark in relation to such event, with the purpose of deriving promotional advantage, without the permission of the organizers. The use of the trade mark, to be prohibited, must be intended to be associated with the particular event (s15A (3)). The requirement of intention therefore links up with that as provided for (as implied there) in the Trade Practices Act (and also impliedly in the Consumer Protection Act, which repealed the Trade Practices Act). Section 15A (1)(a) of the Merchandise Marks Act further makes provision for the period of protection, which may not end more than one month after the event ended.

Punishment for violating the provisions

The Merchandise Marks Act prescribes punishment for violation of some of the principles above, including fines. Though the provisions do have an option of both fine and imprisonment, where it only makes provision for fine, the fine is very small, currently set at a maximum of R5000 or R10 000 per infringing article or item, depending on the nature of the offence (s 20(1)). This implies that companies, which know that they can make a lot of money out of ambush marketing, can violate these provisions, knowing that they will pay a lesser fine. The fines don't distinguish between small and big companies involved in ambush marketing. The fines will therefore, indirectly, only be restrictive on small businesses. Confiscation of the infringing goods is also contemplated (s 20(2)). Even confiscation will however not deter big companies.

Section 19(1) of Counterfeit Goods Act 37 of 1997 does not make anything better by way of fines. However, it has an additional provision that criminal or civil liabilities under other laws are not affected by this Act (s21). This means that persons whose intellectual property rights have been infringed can still institute civil claims against the wrongdoers. Similarly, other criminal liabilities can be laid against the wrongdoers, subject to the Constitution of the Republic of South Africa, 1996 and the Criminal Procedure Act 51 of 1977 (see s21 of the Counterfeit Goods Act). It appears, in my view, that there is nothing preventing both criminal and, more especially civil, liability against the wrongdoers, even under the Merchandise Act.

Though the Trade Practices Act makes provision for either fine or imprisonment, or both, it does not however specify the amount of fine (s19)). However, given the close similarity between the purpose of the above Acts and this Act, it can be reasonably inferred that the weaknesses discussed with regard to the above Acts can as well apply here i.e. the fine might not be differentiated as between big and small companies.

What can the possible defences to the legislations above be?

It appears that the common thread in the above legislations is that there must be an intention to associate or create an impression of association with a particular event or trade mark. Those charged will therefore need to have certain defences, for them to escape liability, criminal or otherwise. It might be a possible defence by those charged that there was no intention to mislead the public into believing that there was any association with the event. Related to this will be the defence that there was no creation of an impression of association with the event, whether intentional or otherwise. It might be difficult in the case of big companies to disprove intention or creation of an impression of association, given that it is easier for the public to assume association in the case of companies with the potential to associate with such events through sponsorships. In the case of small businesses, it might not be difficult for them to disprove any intention to associate, or creation of any impression to do so, given that their size cannot easily be associated with such events, unless the businesses concerned do all they can to so associate.

Special Legislations and Regulations before, during and immediately after the World Cup

As a way of protecting the event, host governments usually enact special legislations and regulations around the time of the event. In the case of South Africa these special measures are also contemplated under s15A of the Merchandise Marks Act. Some of the legislations enacted include the 2010 FIFA World Cup South Africa Special Measures Act 11 of 2006 and the Second 2010 FIFA World Cup South Africa Special Measures Act 12 of 2006. The first Act (No. 11 of 2006) was intended to give effect to the agreement and guarantees SA had with FIFA, with regard to the hosting of the world cup. It provided for details around how access to designated areas, restricted zones, etc, had to take place. It also gave powers to ministers, more in particular, Safety and Security Minister, to make other necessary regulations, so as to give effect to the Act.

The second Act (No.12 of 2006) also had related objectives, as the first one (Act no.11 of 2006), with the latter, however, focusing on the accreditation of foreign medical contingent. This would enable them to operate within the country without the need for registration, as required by local laws. This Act also allowed the bringing into the country of some unregistered medicines, despite that being in contravention of the local laws regulating the registration of medicines and related substances. This was intended to ensure that the visitors are not unnecessarily restricted from operating within the country during that period. Of more importance to ambush marketing, the second Act (No. 12 of 2006) empowers the Minister of Trade and Industry to extend the period of

operation of the declaration of the World Cup event as a protected event, provided the extension should not be more than six months after the event had ended. This is meant to ensure that ambush marketers should not take unfair advantage of the event just immediately after the world cup has ended.

The common law position

Apart from the statutory position, it is here necessary to examine how ambush marketing could be viewed from a common law position. Under common law, a person can be prevented from imitating the goods or services of another, or creating an impression that his goods or services are goods or services of another. The person whose goods are imitated can therefore institute a delictual action against the imitator, based on passing off. Ambush marketing can therefore easily fall foul of these principles. An ambush marketer, by associating himself to a particular event or sponsor, could be said to be committing an act of delict. This could also undermine fair competition principles. So as to protect themselves, potential ambush marketers will need to conclude contracts with the sponsors, for licensing. This might also be a hindrance to small businesses, which might not afford the licensing fees.

Constitutional framework

Section 2 of the Constitution of the Republic of South Africa, 1996, provides that the Constitution is the highest law of the land, and any law inconsistent with it is invalid. It provides for a bill of rights, where rights like equality, human dignity, freedom of association, freedom of expression, freedom of trade, occupation and profession, etc are provided for. In the context of ambush marketing, those who are restricted from advertising are likely to view such restrictions as a restriction on their freedom of expression and freedom of trade. This may therefore leave the question whether restrictions of this nature are reasonable and justifiable in an open and democratic society, based on human dignity, freedom and equality (s36). These constitutional demands therefore require that organizers and sponsors of events, when framing their rights' protection programmes, should do so in such a manner that the restrictions imposed on others do not violate these principles. This framework also exists at international level, through the Universal Declaration of Human Rights (1948), which has the same spirit.

International law position

Because most of these events have an international status, the international law position is here given. Apart from the international human rights instruments like the Universal Declaration of Human Rights, there are other instruments dealing with more specific issues around intellectual property and related rights, which are usually the point of dispute in ambush marketing cases. The rules of the World Intellectual Property Organization (WIPO), a United Nations (UN) agency, will be examined, to the extent of their relevance to the issue of ambush marketing.

World Intellectual Property Organization

Here the paper only focuses on the Paris Convention for the Protection of Industrial Property, which is administered by WIPO. Art 10bis thereof provides for protection in the case of use of trade marks that might create confusion. This will prevent ambushers from using or registering marks that might be confused with FIFA or the sponsors. Art 11 further makes provision for the temporary protection of certain marks during international exhibitions. In my view, the world cup might fall under this protection. This framework could therefore be useful in that most countries of the world are members of the UN, and will therefore be likely to be aware of these instruments.

World Trade Organization (WTO)

What are the rules of the World Trade Organization (a voluntary international trade organization where most states are members), in so far as they are relevant to ambush marketing? WTO has TRIPS (Agreement on trade-

related intellectual property rights), which deals with various types of intellectual property rights. The WTO does not, however, have specific rules dealing with ambush marketing. Its principles, in the case of trade marks, are similar to what the paper discussed above. For example, no person is expected to use his trade mark in a manner that may create deception or confusion with another trade mark owned by someone else. The owner will therefore be able to prevent such persons from using the trade mark (art 16(1)).

FIFA Rules

FIFA has its rights protection programme during major soccer events. This outlines what will, or will not, be allowed during the soccer events. For the 2010 World Cup in South Africa, FIFA had what is referred to as 'The FIFA Rights Protection Programme', detailing what may or may not be allowed during the event. The Programme is mainly meant to protect the sponsors of the event. The programme also outlines its partners, sponsors and national supporters of the world cup. It further outlines the protected marks. These marks include terms, symbols, etc. associated with the event e.g. words like world cup were part of the protected marks during the event (FIFA, 2010). No direct reference to these words could be used by unauthorised persons. In addition, activities associated with the event were restricted, for example ticket promotion (FIFA, 2010). The world cup also led to the making of certain special legislations, as discussed above, so as to protect the event.

ETHICAL QUESTIONS AROUND AMBUSH MARKETING

The paper here briefly looks at some ethical issues, guided by some ethical theoretical traditions. Ethics concerns questions (systematically) about why certain things are considered right or wrong, good or bad, just or unjust. It is therefore about justification of actions or decisions, or some habits. There are many ethical theories accounting for why actions can be right or wrong, or persons being good or bad. These are deontology, utilitarianism, virtue ethics, stakeholder theory and stockholder approach. Despite there being many theories, the discussion here will only be confined to stockholder and stakeholder theories, which this study considers more relevant to the type of disputes during these major events. A short discussion of these therefore follows.

Recently there has been some scholarly debate around the purpose of a corporation or a business. There has been a similar debate around the role of corporate executives, in relation to the purpose of the corporation or business. The question around the purpose of business arose in the context of analyzing the role of business in what is referred to as corporate social responsibility. The debate is about whether the purpose of business is only to make profits, or whether it also includes the undertaking of corporate social responsibility activities. By extension, the debate usually also includes whether the focus is only on the promotion of the interests of shareholders (stockholders) or whether it also includes the promotion of the interests of other stakeholders like employees, customers, the community, the protection of the environment, etc. The theory restricting protection to stockholders is referred to as stockholder theory, while the one covering stakeholders is referred to as stakeholder theory (Beauchamp, Bowie & Arnold, 2009).

Stockholder approach

The stockholder approach has been made popular by Milton Friedman, who is of the view that the role of business is to maximize profit, and that it should do so for its stockholders or shareholders (Beauchamp, Bowie & Arnold, 2009, p.45). Friedman considers the stockholders as the owners of the corporation to whom profits belong (Beauchamp, Bowie & Arnold, 2009). Friedman argues that the corporate executives do not have the mandate to pursue corporate social responsibility activities. Their role is to carry out the mandate of the owners, being that of making profits (Friedman, 2009, p.52). Stockholder theory is therefore very narrow and rigid. The implication of this in the context of ambush marketing is that those companies who have sponsored specific events will only focus on the interests of their shareholders, and be less concerned about the plight of all others, including small businesses which might suffer as a result of exclusive agreements between sponsors and FIFA. The sponsors may sometimes want to exclude others even where they will not lose anything by letting them market, just out of the urge to have monopoly. The fittest, being the more resourced, will rule. The concept of sharing resources, which should be what these big sporting events are all about, will be ignored.

Stakeholder approach

The proponent of this theory is Edward Freeman, according to whom the purpose of a corporation is to promote the interests of key stakeholders like customers, employers, community, and the shareholders themselves (Freeman, 2009, p.56). The theory is more flexible and therefore capable of catering for the interests of different stakeholders. In the context of big sporting events, where many stakeholders might have different interests, the theory can be more suited. The interests of small businesses, of the unemployed, of the environment, of the sponsors too, of government may well be taken into account. Very restrictive sponsorship arrangements could therefore also be discouraged. The theory is therefore to be adopted in the context of dealing with ambush marketing during big sporting events. It can promote resource sharing between small and big business during these types of events.

RECOMMENDATIONS

Ambush marketing rules need to make a distinction between big companies and small companies (including individual hawkers). How the size of the small business should be determined is not part of the scope of this discussion now. The differentiation will ensure that small companies are not negatively affected by the rules. This differentiation can also be made when determining the fines to be meted out, as it will be far more burdensome for a small company to pay a particular fine than a big company. A stakeholder approach to decision-making should also be preferred to a stockholder approach in this regard.

CONCLUSION

The problem of ambush marketing is here to stay for some time. Survey of literature has shown that the problem is too complex to regulate, given that ambush marketers change strategies. It is therefore not possible to make rules that will cover every eventuality. What will also remain a concern is that although some legislations e.g. the Merchandise Marks Act, do contemplate that small businesses should be given opportunities, there was very little to show, by way of special rules and practices during the event, that there is any intention to give small businesses priorities. The laws also do not clearly indicate how the small businesses should be given this priority during the big events, more especially in the context of ambush marketing. In conclusion therefore, one should state that the laws and rules regulating marketing during big sporting events remain unfair to small businesses. Some legal reform in this regard is therefore called for.

REFERENCES

Beauchamp, T.L., Bowie, N.E and Arnold, D.G(Eds.). 2009. *Ethical theory and Business*. 8thed. New Jersey: Pearson Prentice Hall.

Constitution of the Republic of South Africa, 1996. Pretoria: South African Government Printers.

Consumer Protection Act 68 of 2008. Pretoria: South African Government Printers

Counterfeit Goods Act 37 of 1997. Pretoria: South African Government Printers.

Dean, O. (2009). *Defending its turf: Fifa combats ambush marketing*. Retrieved on Dec 29, 2010 from (<http://www.wipo.int/wipo-magazine/en/2009/04/article-0003.html>).

FIFA. (2010). FIFA Rights Protection Programme at the 2010 FIFA World Cup South Africa. Zurich: FIFA. Retrieved on May 29, 2013 from (http://www.fifa.com/mm/.../march2010rightsprotection_a5_20100308.pdf).

Freeman, R.E. 2009. Managing for Stakeholders. In Beauchamp, T.L., Bowie, N.E and Arnold, D.G (Eds.), *Ethical theory and Business* (pp56-68). 8thed. New Jersey: Pearson Prentice Hall.

Friedman, M. 2009. The Social Responsibility of Business is to increase Its Profits. In Beauchamp, T.L., Bowie, N.E and Arnold, D.G (Eds.), *Ethical theory and Business* (pp51-55). 8thed. New Jersey: Pearson Prentice Hall.

Mail & Guardian. (June 16, 2010). *Two Dutch Women Arrested Over Ambush Marketing*. Retrieved on Dec 29, 2010 from <http://www.mg.co.za/article/2010-06-16-two-dutch-women-arrested-over-ambush-marketing>.

Merchandise Marks Act 17 of 1941. Pretoria: South African Government Printers.

Second 2010 FIFA World Cup South Africa Special Measures Act 12 of 2006. Pretoria: South African Government Printers.

Sportsdoc. (posted June 19, 2007). Lesson in Ambush Marketing. Retrieved on Dec 29, 2010 from <http://sportsbiznews.blospot.com/2007/06/lesson-in-ambush-marketing.html>.

Trade Marks Act 194 of 1993. Pretoria: South African Government Printers.

Trade Practices Act 76 of 1976. *Pretoria: South African Government Printers.*

World Intellectual Property Organization. (1967). *Paris Convention for the Protection of Industrial Property*. Geneva: World Intellectual Property Organization

World Trade Organization. (1995). *Agreement On Trade-related Aspects of Intellectual Property Rights*. Geneva: World Trade Organization.

2010 FIFA World Cup South Africa Special Measures Act 11 of 2006. Pretoria: South African Government Printers.

SOUTH AFRICA'S APPROACH TO THE TAX TREATMENT OF MEDICAL CONTRIBUTIONS AND RELATED EXPENSES: SOME LEGAL AND ETHICAL QUESTIONS

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ABSTRACT

The right to health is considered one of the most important rights protected by most constitutions and other laws all over the world. This could be considered as important as the right to life, being so closely linked to it. The tax treatment of contributions, donations and expenses related to people's health therefore calls for some academic scrutiny. The South African tax system does allow instances where some categories of persons, for example, the elderly, can get some favourable tax treatment, more especially in relation to deduction of medical expenses. This favourable tax treatment is however very limited in the case of other categories of persons. Should there be any limitation with regard to the tax treatment of expenses, and other categories of transactions which have some bearing on people's health? What are the underlying principles for the tax treatment of medical contributions and related transactions? The paper here examines the current tax legislations dealing with these aspects, the practices and the principles governing them. The paper then argues that the legislations, practices and principles undermine the right to health. Some legal and ethical theories will be used to tackle the question. The paper then proposes legal reform on the issue.

INTRODUCTION

Most legal systems of the world provide for the taxation of their subjects, using a variety of criteria. What the basis of these criteria and principles are may not always be clear-cut. This paper seeks to look at the South African taxation system, and the criteria it uses to differentiate the taxation of its subjects, more especially in those areas that impact on the health of the nation. The paper therefore looks at the tax treatment of medical expenses and related transactions impacting on health. While different ethical theories exist for dealing with the rightness or wrongness of actions, goodness or badness of character, etc, this paper focuses mainly on theories of distributive justice, more in particular the egalitarian and libertarian theories. The former theory is represented by John Rawls, while the latter is represented by Robert Nozick. Justice theories are considered more suited in dealing with questions of allocation of resources, and of social burdens and benefits. The approach in this paper is to contrast Rawls and Nozick, and then evaluate their relevance to questions of determining the best principles around which benefits and burdens of taxation should be distributed.

EXPOSITION OF THE SOUTH AFRICAN TAXATION FRAMEWORK, IN RELATION TO MEDICAL EXPENSES AND RELATED TRANSACTIONS IMPACTING ON HEALTH

In South Africa, tax matters are mainly regulated by the Income Tax Act 58 of 1962. Section 18 of this Act provides for the deductibility of medical and related expenses. This includes some prescribed medical aid contributions (Huxham & Haupt, 2011, p.225). It also includes some other qualifying medical expenses.

Qualifying medical expenses are those paid for by the taxpayer, but could not be recovered from the medical aid scheme (Venter, Stiglingh, De Hart, Coetzee & Koekemoer, 2010, p.163). As not every medical expense will qualify, it is only those expenses paid by the taxpayer to a medical practitioner, optometrist, dentist, homeopath, and other related health professionals, for professional services rendered or medicines supplied to the taxpayer that will qualify for deductions (Venter *et al.*, 2010, p.163). It also includes expenses paid to a pharmacist, for any medicines supplied by such pharmacist, on the prescription of a doctor or any other person so authorized by s18 of the Act (No. 58 of 1962). Expenses paid to a nursing home, or related persons or institutions as provided for under s18, for any illness or confinement of the taxpayer or his dependants also qualify (Venter *et al.*, 2010, p.163). All the expenses under s18 of the Act, to qualify, should have been expended for the taxpayer himself or his dependants (for any other expenses, see Venter *et al.*, 2010, p.163).

Although there have changes in the most recent past about the way medical and related expenses are treated, the paper looks at both scenarios. There are also proposed changes, due to take effect as from 1 March 2014, from which date there will no longer be deductions for medical expenses, where these expenses will be converted into additional medical tax credit (Venter, De Hart, Coetzee & Koekemoer, 2013, p.164). Before briefly explaining how this different treatment of medical expenses and related transactions works, it is necessary to look at some technical aspects regarding how the system works. Before the current changes, a taxpayer could claim the deductibility of medical contributions and other qualifying expenses, with the result that his taxable income is reduced thereby.

Where a taxpayer is a contributor to a registered medical aid scheme and is below the age of 65, the taxpayer would be entitled to deduct his contributions up to a family limit. A family was calculated by multiplying a specified figure, which at the time of the current changes came about stood at R720 per taxpayer per month. If the taxpayer had some dependants, the taxpayer would also qualify for another R720 for the first dependant, and then R440 per month for any subsequent dependant or dependants. A dependant, for the purposes of this, could be a wife, children or any other person considered as such by the medical aid scheme (For more information on this, see Stiglingh, Koekemoer, Van Schalkwyk, Wilcocks & De Swart, 2012, p.343). If this taxpayer was unmarried, and contributing to the scheme for about R2000 a month, his deduction would be as follows:

Family limit: $R720 \times 12 = R8640$. His total contributions: $R2000 \times 12 = 24\ 000$. Though the taxpayer's total contributions stand at R24 000, he would only be allowed to deduct up to R8 640, being the total limit. The remainder of the contributions i.e., those not allowed as deductions, will then be added to any other qualifying medical expense actually incurred by the taxpayer in terms of section 18 and deducted based on the 7.5% rule (Venter *et al.*, 2010, p.167). Assume that his other qualifying expenses were R10 000, and his taxable income was R400 000, after the medical aid contribution was deducted, while also excluding any retirement fund lump-sum benefit and lump-sum withdrawal benefit received, as required by the formula (Venter *et al.*, 2010, p.167). The deductions, based on the 7.5% (of the taxable income), would be as follows: The total expenses (medical contributions not allowed plus the qualifying expenses) minus the 7.5% of the taxable income, with the difference being the amount to be deducted from the taxable income. This would work like this: $R15\ 360$ (remainder of the medical aid contributions not allowed above) plus R10 000 (the qualifying expenses) = R25 360 minus R30 000 (i.e., 7.5% of 400 000). The difference would be: NIL (as the amount would be a negative amount). The result of this would be that there would be no further deduction allowable, beyond the R8 640 above.

However, if this person was married with 4 children, the answer could change dramatically. In short, the taxpayer in such circumstances would be able to deduct the whole of his medical contributions (but not the qualifying expenses in this case). This would have come about as follows: Taxpayer's limit: R8 640 ($R720 \times 12$); First dependant or wife's limit: R8 640 ($R720 \times 12$); Children's limit: R21 120 ($R440 \times 12 \times 4$). Total family limit: R38 400. Because the family limit here is higher than the actual contributions to the medical aid scheme, the whole contributions would be deductible. Having dependants is therefore a factor in determining the amount of deductions one would be entitled to.

Where the taxpayer in any of the scenarios was aged 65 or above (married or unmarried, having dependant or no dependant), the taxpayer would be able to deduct all his contributions to medical aid scheme. Unlike in the case of those below the age of 65, the taxpayer would again also be able to deduct all the qualifying

expenses incurred under s18 of the Income Tax Act. The same, i.e. full deductibility of medical expenses, will apply to a taxpayer, irrespective of age, who is disabled, or has a spouse or child who is disabled (Venter *et al.*, 2010, p.164). The contribution by the taxpayer's employer to the medical aid scheme will also not be considered to be a fringe benefit (and therefore not taxable in the taxpayer's hands), for those aged 65 or above. Such contribution is treated as a fringe benefit in the case of the taxpayer aged below 65, irrespective of whether he has disability or not (Venter *et al.*, 2013, p.164).

The new changes relating to medical expenses do not change the situation of those aged 65 and above. All medical contributions and qualifying expenses are still deductible in full. For taxpayers below the age of 65, the system of family limit has been changed into medical tax credits, calculated as follows: R230 per month per taxpayer; R230 per month per first dependant; R154 per month per every additional dependant. This means that the taxpayer is able to claim medical tax credit to the extent of these amounts. Any contribution by employer to the medical aid scheme will be treated as a fringe benefit, and therefore taxable (Venter *et al.*, 2013, p.158). Any additional expenses incurred by the taxpayer, not linked to contributions to the medical aid scheme will be added to any contributions that exceed four times the medical tax credit (Venter *et al.*, 2013, p.160). The total thereof, to the extent that it exceeds 7.5% of the taxable income (excluding retirement fund lump-sum benefits and retirement fund lump-sum withdrawal benefits, and after deducting donations to public benefit organizations), will be deducted (Venter *et al.*, 2013, p.160).

In the case of persons with disability (or persons whose spouses or children have disability), all the medical expenses other than contributions to medical aid scheme will be deducted in full. In the case of medical aid contributions, the system is almost similar to that of the taxpayers below 65. (For further information on the proposed changes into the medical tax credit system for all the taxpayers, including those above the age of 65, though operating slightly differently from the current system, see Venter *et al.*, 2013, p.164).

From the above one can conclude that there are a number of factors generally taken into account when dealing with medical contributions and expenses. The following appear to be some of the key factors, namely, age of the taxpayer, marital status (to a very limited extent), whether one has dependants or not and the level of income, amongst other possible factors. What is the justification for these factors to be used in such cases? So as to deepen understanding on this, some ethical theories are therefore looked into, more in particular those dealing with distribution or allocation of resources.

EXAMINATION OF THE ETHICAL THEORIES DEALING WITH QUESTIONS OF DISTRIBUTION

Although many other theories could possibly account for why some principles, and not others, are taken into account when dealing with the deductibility of medical and related expenses, it is the theories of John Rawls and Robert Nozick which could deepen understanding on this. The theorists, one libertarian (Nozick) and the other considered egalitarian (Rawls), both deal extensively with questions of justice in the distribution and allocation of resources. Based on Nozick's own classification of the approaches he follows and that followed by other theorists like Rawls, the approaches are also categorized as non-patterned and patterned, respectively. The latter bases its distribution on specific properties (or patterned principles) like need, moral merit, etc. (Nozick, 2002, p.517). Allocation according to this approach takes the shape, 'distribution according to need; according to merit', or 'from each according to...' etc. (Nozick, 2002, pp.517-518). Non-patterned principles are not based on some properties and past actions of a person. They are based on the process of 'just acquisition, just transfer and just rectification' (Stumpf & Abel, 2002, p.514). It is therefore important look at how these approaches have implications for tax policy, more especially in relation to medical deductions.

Robert Nozick's theory of justice

The main focus of the Nozickian theory is on how the basis of distribution of resources should be. Nozick questions theories like egalitarianism, which looks at the current resource distribution as the basis of assessing what is just. He looks at the past (historically), and then argues that if the property has been acquired properly, the holder thereof is entitled to it. Nothing therefore binds the holder to distribute. If the acquisition of the

property was improper, there can be justified deviation from the protection of liberty, and therefore allowing the rectification of the problem. The argument can therefore be represented in as follows: 'A' acquired his property properly (justly). It is unjust to distribute any person's property to someone else, if properly acquired. Therefore, it is unjust to distribute A's property to someone else.

Advantages of Nozickian theory

The theory provides a sound and clear basis for why distribution from one person to another should take place. It can therefore be important for clarification purposes. It can therefore be useful in dealing with issues of distribution at personal level (micro-level). For example, at personal level, if A has been disadvantaged by B, he can undoubtedly lay a claim for whatever B has acquired. In most legal systems there are even settled principles to deal with this type of scenario. Enrichment action is one of them, which allows a person at whose expense somebody has benefitted, to have the disturbed equilibrium restored (through compensations). In the law of contract, there is a principle of *restitutio in integrum* (restitution), where the party seeking the restitution has been wronged. For example, where a minor has entered into a contract to his own detriment, he may claim restitution from the other party (Fouche, 2007, p.70).

Some problems with Nozickian theory

There are a few problems with (or objections to) Nozickian theory. Nozick sometimes uses a straw man argument. He misinterprets what other theorists on distributive justice argue for. For example, his example of the basketball player seeks to suggest that other theorists' main focus is prohibition of accumulation of wealth and use of talents (Nozick, 2009, p.684). The other theorists like John Rawls do not prohibit that, but only argue for active measures to be taken to deal with the situation of those in disadvantaged situations. Rawls does not argue against any distribution to those not disadvantaged. Nozick further makes an irrelevant appeal to emotions by simply locating his examples in socialist societies (Nozick, 2009, p.685). It is not relevant to do so under the circumstances. That could further be viewed as some preconceived and prejudiced ideas about socialist societies. It is also incorrect to associate all forms of centralized distribution, through for example taxation, with socialism. It is possible to have this without being a socialist society. Further, Nozick's reference to other theories as patterned, and his as non-patterned, may suggest that his theory is more flexible to situations, while the others not. This appears misleading.

Despite the clarity that the theory provides in the case of personal situations, the theory is however not appropriate in dealing with questions of distribution at macro-level (outside close and personal situations). It is in fact an over-simplistic principle at that level. For example the rectification principle, which implies that the wrongdoer must have been identified, from whom the redress must come, is not appropriate at macro-level decision-making. Usually the disadvantages in communities can be systematic, with no particular person (wrongdoer) easily identifiable. The rectification principle might find it difficult to deal with this type of a situation. In the context of progressive taxation the theory might discourage this, as there might be no justification, according to the theory, to have those who earn more pay more. The progressive system of taxation bases taxation on the level of income a person earns, and it requires a person to pay more if he earns more (Venter *et al.*, 2013, p.3). The system may not properly account for why those facing social disadvantages, namely, the aged, disabled and those with dependants may, within the taxation system, have to be treated differently from those without these disadvantages.

The system of providing extra tax rebates for the aged (in South Africa it covers natural persons aged 65 and above, plus additional rebates called tertiary rebates for those aged 75 and above), might not be easily accounted for through Nozick's libertarian principles (also see Venter *et al.*, 2013, p.13, for the rebates). Those who are 65 and above also enjoy tax exemptions in relation to local interests received. As already discussed above, in the context of the deduction of medical contributions and expenses, the South African tax system treats those above the age of 65, those disabled and those with dependants (and indirectly those who are married, as spouses may qualify as dependents too) more favourably than those without these qualities. In general, expenses on health-related activities are treated more favourably than general expenses, e.g., expenses on personal maintenance like buying food, clothes etc., are not deductible. Though unstated, the South African tax system could, in Nozickian language, be viewed as a patterned system in this context. In other words, it allocates

resources according to a particular pattern, based on some properties (characteristics) like age, disability, marital status, having dependants. The allocation could be viewed as being some distribution 'according to' these properties. Nozickian theory is therefore likely to reject these as patterned, and opting for what it considers non-patterned (not based on specific predetermined properties).

The other problem relates to Nozick's 'justice in acquisition' principle, which focuses on how the property was acquired or transferred. Does this really entail going back to history? How far should we go, if we do? A's property, though properly acquired by him, might have been acquired from a person who did not properly acquire it. Many chains may have been broken in the middle. Though this paper concedes that the theory is capable of being applied well at personal level, this example shows that even at personal level, the resolution will not be that simple. This can clearly oversimplify issues if it were to be also applied at national level. It may provide very little guidance as to what we need to do to alleviate the plight of those socially disadvantaged. If it does provide such guidance, it may at best discourage any positive measures to alleviate the plight of those in the disadvantaged situation.

The system of giving favourable tax treatment, through medical deductions, for the aged, disabled and other similarly situated persons will therefore not be accommodated in this theory. Because even in the case of all other natural persons (and possibly any other persons), the condition of being unhealthy is a social disadvantage, but the theory would not accommodate any system that allows favourable tax treatment for persons who seek deductions for the expenses incurred on medical and other health-related conditions. The theory would therefore fail as a basis for the fair distribution of social benefits and burdens, more especially through a tax system.

Rawlsian theory

Rawls considers justice as a first virtue for social institutions (Rawls, 2009, p.674). Rawls argues for a method by which fair principles of justice can be developed. The principle (or method in this context) is referred to as the original position. Rawls asserts that for persons to develop fair principles of justice, they must first place themselves in a position of ignorance ('in a veil of ignorance'). This implies placing themselves in a position where they do not know what their future positions, status, etc., will be. This is considered an impartial position. If principles are chosen from this position, their choice will therefore be impartial. In other words, this will prevent situations where a person chooses a particular position, in what appears to be a neutral situation, yet the person is taking the position to pursue his or her own interest. Not knowing your future position will, according to Rawls, prevent this from happening (Rawls, 2009, p.677).

From this position could be developed principles of justice. The original position will, according to Rawls, most likely lead to fair principles. Even if the principles taken may have undesired results, those who took them will not have foreseen them. Rawls developed two principles of justice: Firstly, that each person should be permitted the maximum acquisition of basic liberty compatible with the same liberty available to others, and secondly, that inequality should be permissible if this is to the advantage of everyone. The latter is what is called the difference principle (Rawls, 2009, p.677). The first principle is the rule, and the second the exception to the general rule. The second principle also encompasses equality of opportunity in terms of access to positions and offices.

These principles are altogether designed to provide a way of assigning rights and duties in societal institutions (Rawls, 2009, p.674). They are designed to apply in a particular preferential order, with the first given priority.

Rawls' basic claim in his theory of justice can therefore be summed as follows:

Justice is the first virtue of social institutions. Laws and institutions not in conformity with it are therefore unjust. There should be fairness in both the design of the principles of justice, as well as its application of the principles (the actual distribution of resources). Fairness in the design implies using the original position as a starting point when developing principles of justice. Fairness in the application implies using the two principles of justice discussed above. Law and social institutions are therefore just if they conform to the above principles, and unjust if they don't. Rawls also emphasizes the role of institutions in ensuring justice. He says in this regard:

Finally, there is a distribution branch. Its task is to preserve an approximate justice in distributive shares by means of taxation and the necessary adjustments in the rights of property. Two aspects of this branch may be distinguished. First of all, it imposes a number of inheritance and gift taxes, and sets restrictions on the rights of bequest. The purpose of these levies and regulations is not to raise revenue (release resources to government) but gradually and continually to correct the distribution of wealth and to prevent concentration of power detrimental to the fair value of political liberty and fair equality of opportunity. For example, the progressive principle might be applied at the beneficiary's end. Doing this would encourage the wide dispersal of property which is a necessary condition, it seems, if the fair value of the equal liberties is to be maintained' (Rawls, 2009, p.681).

Possible objection to the Rawlsian theory

The theory could be said to be not a truly equalization theory, but one of improvement or betterment of conditions of persons. If it does promote true equality, it is just ambiguous in saying so. Inequality will be allowed as between different persons, so long as the least well-off is not more disadvantaged than before. The theory therefore falls short of true egalitarianism, in providing the way resources have to be allocated, but has moderate egalitarian elements in the method of designing principles of justice.

The theory is not clear about how it will resolve situations where different categories of basic liberties conflict. The theory therefore fails in telling us how to prioritize different interests and rights when they conflict with one another. The only prioritization Rawls provides is as between the first and the second principles of justice he proposes (Rawls 2002: 511). The proponents of theory might however respond that this objection is not unique to Rawlsian theory, but is also applicable to many other theories (including deontology from which Rawls' theory is adopted), virtue theory, libertarian theory, etc. This objection might however remain fatal even in our choice of taxation principles, in case of conflicting priorities. For example, how do we choose whether to prioritize health promotion through tax deductions for medical and health-related expenses, and not do same for expenditures on nutrition-related transactions, on gyms, etc., which may equally promote health? In other words, the theory might not tell us why we should take this option, but not that option.

The theory has some ambiguity and lack of details in certain aspects of the theory. For example he says:

"A departure from the institutions of equal liberty required by the first principle cannot be justified or compensated for, by greater social and economic advantages" (Rawls 2009: 678).

Rawls again says:

"Thus the principle (difference principle –my emphasis) holds that in order to treat all persons equally, to provide genuine inequality of opportunity, society must give more attention to those with fewer native assets and to those born into the less favourable social positions" (Rawls 2009: 679).

This makes the position of whether or not there should be deviation from the first principle a bit ambiguous.

Advantages of the Rawlsian theory

Despite some of the objections to the theory above, there are some advantages that cannot be easily refuted by the objections. Even though the theory has more emphasis on protection of liberty, it does also allow for exceptions. It is therefore less absolutist than traditional deontologists. The exceptions, as discussed already, allow for inequalities where the inequalities are to the advantage of all, more in particular the least advantaged. In the context of taxation, the theory does accommodate the use of taxation as a tool of distribution. The theory may therefore also accommodate the use of taxation for the purpose of benefitting the least advantaged. This could take place through the progressive system of taxation which, as already indicated above, bases taxation on the level of income a person earns, and a person pays more if he earns more (Venter *et al.* 2013: 3). The theory is likely to discourage regressive forms of taxations, where the more you earn, the less you pay (See Venter *et al.*

2013: 3). The theory can in this regard properly account for why certain persons should receive favourable tax treatment, based on their social conditions of disadvantage.

In the context of medical tax deductions, the theory therefore can adequately account for why having such (medical) deductions for all persons, is just, if the condition of being ill, and therefore resulting in health-related expenditures, is considered to be a social disadvantage. It may further account for why having favourable treatment for the aged, disabled, and those with dependants, in the form of having comparatively more deductions than for the rest, is justified. This can be accounted for through the difference principle, as espoused by Rawls. However, as indicated in the objections to the theory above, the theory may not properly account for why some categories of expenditures on health promotion should be prioritized more than others. It may equally not tell us why some categories of social disadvantage are more important than others, e.g., why should the aged qualify for additional rebates, but a disabled person not? Or why should a person with dependants qualify for additional medical deductions, while a person with some chronic illness (short of being classified disabled) still might not qualify for the additional deductions if not having dependants? The theory might say very little about these questions.

Despite these shortcomings, Rawlsian theory still provides a better account of why we need to accommodate those who are socially disadvantaged. A better theory, however, still needs to be developed for accounting for why and how the tax system should differentiate as between different categories of taxpayers. Better principles need to be found to respond appropriately to the challenge.

The position taken in this paper is that a medical condition in itself creates a social disadvantage for all persons, young and old, disabled or not, married or unmarried, having dependants or having none. The taxation system should therefore consider full deductions for all persons, in all categories, so long as it can be shown that the expenditure was incurred on medicine and some defined health-related transactions. Donations on health-related matters should be treated along these lines, therefore allowing for full deductions by the donor, for the donations made to a health institution or on health-related grounds (the current rules in relation to donations to non-profit organizations is to limit deductions up to a certain amount, currently fixed at 10% of the taxable income, and donations rules relating to non-qualifying non-profit organizations do not treat donations on health-related matters any specially. For further information on this, see Venter *et al.* 2013: 154).

Health is a matter of life and death, and therefore needs to be given some priority in our tax systems. The absence of favourable tax treatment mechanisms in this regard may undermine the constitutional right of access to health, as provided for in terms of s27 of the Constitution of the Republic of South Africa, 1996. The state is required under this section to take legislative and other measures, within its available resources, to achieve the realization of these rights, on progressive basis.

CONCLUSION

This paper had to look at whether there is any need for favourable tax treatment of medical and related expenses, for all persons, and if so what the principles are for dealing with same. The current South African tax system appears to make more favourable tax treatment for certain categories of persons, based on age, marital status, number of dependants and disability. While this is supported, the paper argued for the widening of this favourable treatment for all categories of persons who spend money on medical-related transactions. Different theories are used to argue for the position. The theories of John Rawls and Robert Nozick are contrasted, and Rawls theory is found to provide a better account for why those socially disadvantaged could be treated favourably. The paper here argues that those with some illness, and therefore involuntarily spending money thereon, need to be treated favourably too. The favourable tax treatment should therefore not only be confined to those presently covered by the South African tax system, but needs to go beyond that. Some legal reform in this direction is therefore warranted, through the broadening of the categories of persons considered for favourable tax treatment on their medical and related expenses.

REFERENCES

Stumpf, S.E. and Abel, D.C. (2002). *Elements of Philosophy. An Introduction*. 4th ed. New York, NY: McGraw-Hill.

Beauchamp, T.L., Bowie, N.E. and Arnold, D.G. (Eds). (2009). *Ethical Theory and Business*. 8thed. New Jersey: Pearson Prentice Hall.

Constitution of the Republic of South Africa, 1996. Pretoria: Government Printers.

Fouche, M.A. (Ed). (2007). *Legal Principles of Contract and Commercial Law*. 6th ed. Durban: LexisNexis.

Huxham, K. and Haupt, P. 2011. *Notes on the South African Income Tax*. 13TH ed. Roggebaai: H & H Publications.

Income Tax Act 58 of 1962. Pretoria: Government Printers.

Nozick, R. (2009). The Entitlement Theory. In Beauchamp, T. L., Bowie, N.E. and Arnold, D.G. (Eds), *Ethical theory and Business* (pp.682-685). 8th ed: Pearson Prentice Hall.

Rawls, J. 2009. An Egalitarian theory of Justice. In Beauchamp T. L., Bowie, N.E. and Arnold, D.G. (Eds), *Ethical Theory and Business* (pp.674-682). 8th ed: Pearson Prentice Hall.

Stiglingh, M., Koekemoer, A.D., Van Schalkwyk, L., Wilcocks, J.S. and De Swart, R.D. 2012. *Silke: South African Income Tax*. Durban: LexisNexis.

Venter, J.M.P., Stiglingh, M., De Hart, K.L., Coetzee, K., and Koekemoer, A.D. 2010. *A Student's Approach to Income Tax: Natural Persons*. Durban: LexisNexis.

Venter, J.M.P., De Hart, K.L., Coetzee, K., and Koekemoer, A.D. 2013. *A Student's Approach to Income Tax: Natural Persons*. Durban: LexisNexis.

ENVIRONMENTAL IMPACTS FROM COAL MINING IN SOUTH AFRICA

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ABSTRACT

The South African coal mining landscape was explored to establish its impacts on the environment. The mining companies, the government watchdogs on the environmental affairs, mining processes, transportation modes and the coal consumption for domestic and export plus the other role players in the industry are described. The environmental impacts from the coal mining process, beneficiation, transportation and coal use are discussed. The impacts on the soil, underground water and air are also articulated. The danger posed by the acid mine drainage and the discarded coal mines in the coalfields of Mpumalanga are also expressed. The two market segments for the South African coal: domestic and export and their contribution to the environmental degradation are expressed in details. The sustainability reporting and its three tiers: economic, environment and social are stipulated. Subsequently, recommendations are made to reduce environmental degradation in future by implementing green supply chain; use of clean coal technologies; improve collaboration for the coal supply chain and introduction of less cumbersome legislations to expedite coordination of environmental management. This is in line with the South Africa's plan to move to a low-carbon, resource-efficient and climate-resilient green economy that would deliver high-impact socioeconomic and environmental benefits.

INTRODUCTION

The study explores the coal mining landscape in South Africa which commenced more than 100 years ago. The mining areas, mining companies and the role players in the industry who includes the coal users and the logistics companies form the basis of the study. The other role players include the South African government watchdogs on the environmental affairs: Department of Mineral Resources (DMR), Department of Environmental Affairs and Tourism (DEAT) and the National Energy Regulator of South Africa (NERSA). The Chamber of Mines of South Africa was included as it provides research function for the industry and its socio-economic attributes to the country.

The environmental impacts from the coal mining activity, handling, stockpiling, beneficiation, transportation and consumption by the customers are expounded. These comprises site clearing of vegetation, ground excavation, soil and underground water disturbances, beneficiation, dump sites for discarded coal, modes of transport and the dangers posed by acid mine drainage (AMD).

The study focuses on both domestic and export markets comprising 75 percent and 25 percent respectively of the total coal produced in South Africa. The domestic market is predominantly for electricity generation by ESKOM and for the production of liquid fuels and petrochemicals by SASOL. Coal for export is mainly from Mpumalanga coalfields and exported through Richards Bay Coal Terminal to Europe Union and Asian countries. Hence, South Africa is one of the global top 20 major polluters of the environment. Subsequently, the study looks at the United Nations campaign on climate change under the auspices of the United Nations Framework Convention on Climate Change (UNFCCC); the clean coal technologies and the sustainability reporting on the triple bottom lines: economic, social and environment in pursuit of sustainable development.

PROBLEM STATEMENT

The problem statement for the study is the continued degradation of the environment in South Africa emanating from coal mining and its supply chain. The adverse effects on the environment are experienced from the coal mining process, stockpiling, processing, transportation and in the coal utilization. The soil and plant life are affected by excavation while dust and use of chemicals pollute the atmosphere. The surface and underground water table are interrupted and toxic elements develop when water gets in contact with the exposed rocks forming acid mine drainage that could contaminate water if it is not drained appropriately.

The other major impacts emanates from burning of coal for the generation of electricity and during transformation into liquid fuels and petrochemicals. The coal dust from the stockpiles and on transportation in uncovered facilities are other concerns for air pollution.

THE PURPOSE OF THE STUDY

The purpose of this study was to establish how coal mining and its supply chain impacts on the environment with a view of establishing a lasting solution to pollution. It was carried out by looking at the critical areas in the South African coal supply chain that included:

1. Reviewing critically the South African coal mining industry and its landscape.
2. Reviewing literature on South Africa coal mining and supply chain.
3. Determining the environmental germane to the industry.

METHODOLOGY

This study has adopted a qualitative research paradigm. According to Cooper and Schindler (2008: 162-168) the outcome of the qualitative interview depends very much on how the researcher prepares the participants for the interview. 'Qualitative research has substance, gives insight, shows sensitivity and is unique in conceptualization, yet grounded in data' (Corbin & Strauss 2008: 302).

The study involved the selection of participants, undertaking the interview, feedback on the interview for validity/reliability and facilitating data collection in a recorded form using an audio data recorder and field notes. Citing Goddard and Melville (2005: 49) the researcher must not direct the participant's answer through his tone of voice or rephrase the research question. Research design involves activities of 'collecting and analysing data, developing and modifying theory, elaborating or refocusing the research questions, identifying and addressing validity threat' (Maxwell 2005: 2).

A purposive sampling process was used for the selection and inducting the participants. The participants were top professionals who were also involved in decision making in their organizations in order to provide credibility to the study. There were 14 respondents earmarked for this research and 13 of them responded: 12 respondents were interviewed at their work place while 1 respondent provided a telephonic interview. The 13 respondents comprised 4 Chief Executives and 9 senior professionals in the mining and affiliated industries nominated by their respective chief executives.

Sample and Procedures

The researcher is required to obtain permission for access to individuals and institutions from gatekeepers of the target institutions (Ehigie & Ehigie 2005: 622-623). The permission to conduct research either oral or written is paramount (Cooper & Schindler 2008: 37). The objectives for the research were addressed to 'gatekeepers' by the researcher and also stated the value proposition for the study, purpose and ethical considerations that also addressed the 'informed consent' (admissibility for research process). A research introduction letter from the Vaal University of Technology formed part of the presentation. The content of the letter included the

introduction of the researcher, confidentiality undertakings and the use of audio digital data recorder for recording the interviews.

Data analysis

The research data was collected from the respondents using the audio digital data recorder and from the field notes. The collected data was transcribed and content analysis was used for the translation and analysis. The emerging themes and sub-themes were recorded and evaluated establishing how the industry impacts on the environment.

Reliability and Validity (Measures of Trustworthiness)

The reliability and validity of data from this study were ascertained through triangulation: comparing data from the interviews, feedback from the participants and from the literature. Triangulation enhances validity and richness of data by looking at issues from different angles (Lee & Lings 2008: 239). ‘Multiple sources lead to a better understanding of the phenomena being studied’ (Willis 2007: 219).

Ethical Procedures

According to Eriksson and Kovalainen (2008: 68) research is vulnerable to ‘lies, fraud and wrongdoing’ hence, ethical adherence is paramount. The ethical issues for this study were formally addressed by the researcher to the institutions’ gate-keepers and the respondents.

RESULTS

The findings revealed the adverse impacts on the environment from the South African coal mining industry and role players. Four major themes emerged out of the study reflecting the impacts from the legislation process to the processes of the coal supply chain and the role players in the industry. The major themes comprised the earth’s surface factors, air pollution, coal use impacts and coal transportation. Emanating from the broad categories that were identified were several sub-themes and they are expressed in Table 1.

Table 1: Themes and Sub-Themes Emanating from the Interviews

THEMES	SUB-THEMES
Earth’s surface factors (mining process)	Soil, ground deformation, solid waste, ground/surface water, Acid Mine Drainage (AMD)
Air pollution	emissions from processes, beneficiation, industry and homes
Coal use impacts	Power station (electricity generation), Liquid fuels/petrochemical plants
Transportation	- Conveyor belts , rail, road

Source: Own research

DISCUSSION

There are 73 collieries in South Africa most of them owned by the five leading mining companies and distributed nationally as follows: Free State (2); Gauteng (1); Kwazulu-Natal (7), Limpopo (2) and Mpumalanga (61) (DMR 2008).

The factors contributing to the environmental degradation include earth’s surface factors (mining process); air pollution; coal use and transportation.

Earth's Surface Factors (Mining Process)

The adverse effects from coal mining process include deformation of the landscape, destruction of plant life, soil erosion, solid waste production and interference with the surface/ground water posing the danger of acid mine drainage mixing with surface/ground water. According to McDonald (2002: 159) coal mining process impacts on land, air and water resources causing disturbance to the environment. The mining process includes ground excavation, coal washing and stockpiling that cause gaping holes in the ground, soil removal, contamination of surface/ground water and creation of solid wastes, water contamination, salination and siltation. The contaminated water contains poisonous or polluting substance. The salination contains high concentration of salt while siltation occurs when the running water carries fine sand, clay or other material.

1. Impacts on the soil

Mining activities cause severe disturbance to the soil environment in terms of soil quality and productivity and this is of serious concern worldwide (Mentis 2006:193). In terms of South African legislation, developers are required to rehabilitate ecological damage they inflict on the environment. In the case of the disused and discarded coal mines' rehabilitation has not appropriately been done in South Africa (Viren, Andrew & Sreekanth 2006: 297-307).

2. Impacts from solid waste

The mining industry is the largest contributor of solid waste in South Africa. It is estimated that for every ton of metal that leaves the mills, 100 tons of waste is created. A major source of solid waste in the coal mining industry comes from the poor quality discarded coal and ash separated when coal is washed (beneficiation) and blended for quality. According to Lloyd (2002: 3) over 80 million tons of coal wastes are dumped in South Africa annually.

3. Impacts from acid mine drainage (AMD)

Acid mine drainage (AMD) involves highly acidic water, usually containing a high concentration of metal sulphide and salt as a consequence of mining activity. The major sources of AMD include drainage from underground mineshafts, runoffs and discharge from open pits and mine waste-dumps, tailings and ore stockpiles, which make up nearly 88 percent of all waste produced in South Africa. Drainage from abandoned underground mine shafts into surface water systems either as decants or spillage may occur as the mine shaft fills with water (Manders, Godfrey & Hobbs 2009:1).

Air Pollution

The air pollution factor results mainly from coal-bed methane gas, a greenhouse gas which is a serious security risk in coal mining due to its explosive nature. Therefore, air pollution manifests from mining processes, coal beneficiation, coal stockpiles and coal use at home/industry (McDonald 2002: 158).

Mining processes

The use of chemicals in the coal mining process disrupts the hydrological pathways and contaminates oozing water from aquifers (water absorbing rocks) depressing the water table. Such type of water is saline and has heavy concentrations of salts such as calcium sulphate, sodium sulphate, magnesium sulphate or sodium bicarbonate, depending on the area. This polluted water is what is called 'Acid Mine Drainage'. In South Africa, water from Mpumalanga coalfields is rich in calcium sulphate while water from Waterberg coalfields has more concentration of sodium bicarbonate Manders *et al.* (2009: 1).

1. Impacts from coal beneficiation

The use of both 'wet separation' and 'dry beneficiation' causes pollution. Wet beneficiation is the process of the removal of the contaminants and the lower grade coal to achieve a product of quality which is suitable for the application by the user - either as an energy source or as a chemical agent or feedstock using water (Pinsloo 2009: 2). The process uses approximately 200 liters of water to process one ton of coal. Dry beneficiation is used in areas with water shortage and produces dust pollution (Singh & Beukes 2006: 40).

2. The impacts from coal stockpiles

The dust from the coal stockpiles pollutes the atmosphere, while the rain water washes the dust away causing damage to vegetation and polluting surface water.

3. Impacts from coal use at industry and homes

The environmental impact from the coal use at the industry and at homes is the greenhouse gases emissions to the atmosphere and the impacts emanating from the transportation from the coal mines.

Coal Use

The major impacts from coal use are mainly from emissions from coal burnt from coal-fired power stations and industries that produce liquid fuels and petrochemical products.

1. Impacts from coal burnt at coal-fired power stations

The power plants pose the greatest concern for air quality as they burn massive quantities of coal which emit massive greenhouse gases into the atmosphere as stated by the South African Government Gazette in 2006.

According to ESKOM (2009:80), the quality of air emission at ESKOM power plants has deteriorated since 2007 due to factors such as power stations running at higher load factors to meet energy demand; poor quality coal; inadequate maintenance due to lower reserve margins; and poor performances in some power stations.

ESKOM has planned for 40 new coal mines costing over R100 billion that need to be built to provide a sustainable coal supply to the existing power stations and the new ones that are planned to come on stream in the short and medium-term (Wilhelm 2009: 7-9).

2. Impacts from coal transformation into liquid fuels and petrochemical products

In South Africa the transformation of coal-to-liquid (CTL) fuels and petrochemical products is done by a local internationally acclaimed company SASOL using Fischer-Tropsch synthesis technology. The technology produces massive emission of carbon dioxide to the atmosphere making Secunda plant the single largest emitter of carbon dioxide in the Southern Hemisphere (SASOL 2008: 83).

Transportation

Transportation of coal from the mines is determined by the type of end users. The bulk of the domestic coal for power generation is transported from the mines operating adjacent to the power stations via the conveyor belts and the other modes used are road and rail. The road transport is mainly to the coal-powered power plants and impacts heavily on roads and causes noise and air pollution. The rail is mainly for the transportation of export coal and causes minimal pollution (Bischoff 2009: 100-101).

STRENGTH, LIMITATION AND FUTURE DIRECTION

A remarkable strength was the use of purposive sample. This ensured that the data was collected from credible sources comprising respondents who were professionals and involved in decision making in their respective organizations. The nature of the study provided limitation due to the high level of the targeted

population in the coal mining and affiliated industries. Coal being a primary source of energy in South Africa and energy being sensitive as a key role player for sustainable development restricted the flow of information. However, the use of peoples' skills, tact and professionalism made it possible to acquire the required information.

The future of coal mining could focus on the clean technologies and diversifying to renewable sources of energy in order to reduce environmental degradation. The 2011 South African government integrated resource (IRP) plan on energy anticipates that by 2030 the energy generated from carbon-dioxide free sources (including nuclear) will be nearly 30 percent of the total energy mix in the country. There are also needs for improved collaboration in the industry to tackle the environmental issues through effective and less cumbersome legislations. Integrated reporting by mining companies need to be enforced as stipulated by the King Report III that corporate reporting should incorporate the three tiers of sustainability: economic, environment and social aspects.

The dilapidated coal mines should be rehabilitated and the present requirements for new mining ventures to contribute towards decommissioning costs of the mines should be enforced for future developments. The coal logistics in South Africa should look into minimizing coal transportation by road as it is a menace to the community and the environment.

RECOMMENDATIONS

The United Nations campaign on global climate change and sustainable development under the auspices of United Nations Framework Convention on Climate Change (UNFCCC) provides a framework for countries to save the planet earth. In order to facilitate sustainable development and reduce environmental degradation from coal mining in South Africa, the following issues need to be addressed and implemented without delay:

- Introduction of clean coal technologies and carbon emission audit;
- Enforcing carbon emission credits;
- Action plan for immediate rehabilitation of dilapidated coal mines to be enforced;
- Implementation of management of policy on acid mine drainage (AMD);
- Drastic reduction of coal transportation by road.
- Implementation of sustainability reporting
- Implementation of green supply chain/logistics

This is in line with the South Africa's plan to move to a low-carbon, resource-efficient and climate-resilient green economy that would deliver high-impact socioeconomic and environmental benefits.

REFERENCES

Bischoff, F. 2009. Coal Haulage. *Imiesa*, October, Pp. 100-101.

Claasens, S. 2003. Soil Microbial Community Function And Structure As Assessment Criteria For Rehabilitation Of Coal Discard Sites In South Africa. Ma (Env) Dissertation: North-West University (Potchestroom).

Cooper, D.R. & Schindler, P. S. 2008. 10thed. *Business Research Methods*. New York: Mcgraw-Hill.

Corbin, J. & Strauss, A. 2008. 3rd Ed. *Basics Of Qualitative Research*. Thousand Oaks (Ca): Sage.

Ehigie, B.O. & Ehigie, R. I. 2005. Applying Qualitative Methods In Organization: A Note For Industrial/Organizational Psychologists. *The Qualitative Report* Volume 10 Number 3 September, Pp. 621-638. [Online.] Available At <[Http://Www.Nova.Edu/Sss/Or/Or10-3/Ehigie.Pdf](http://www.nova.edu/ssw/Or/Or10-3/Ehigie.Pdf)>. Accessed: 13 September 2010.

Eriksson, P. & Kovalainen, A. 2008. *Qualitative Methods In Business Research*. London: Sage.

- Eskom. 2009. Annual Report.
- Goddard, W. & Melville, S. 2005. 2nd Ed. *Research Methodology (An Introduction)*. Durban: Juta.
- Lee, N. & Lings, I. 2008. *Doing Business Research: A Guide To Theory And Practice*. London: Sage.
- Lloyd, P. J. 2002. Coal Mining And Environment. *Energy Research Institute, University Of Cape Town*, P 6.
- Manders, P., Godfrey, L. & Hobbs, P. 2009. Acid Mine Drainage In South Africa. *Csir (Our Future Through Science)*, August, P. 1.
- Maxwell, J. A. 2005. 2nd Ed. *Qualitative Research Design: An Interpretive Approach*. Thousand Oaks (Ca): Sage.
- Mcdonald, D. A. 2002. *Environmental Justice In South Africa*. Cape Town: University Of Cape Town.
- Mentis, M. T. 2006. Restoring Native Grassland On Land Disturbed By Coal Mining On The Eastern Highveld Of South Africa. *South African Journal Of Science* 102, May/June.
- Prinsloo, L. 2009. Calls For Further Research Into Dry Coal Beneficiation Growing. *Mining Weekly*, 27 March, P. 16.
- Republic Of South Africa (Rsa). Department Of Environmental Affairs And Tourism. 2006. *Environmental Management Plan (Emp)*. Government Gazette No. 28753. Vol. 490. Pretoria: Government Press.
- Republic Of South Africa (Rsa). Department Of Mineral And Energy, 2007/2008. *South Africa's Mineral Industry (Sami)*. Pretoria: Government Printers.
- Sasol. 2008. Sustainable Development Report.
- Singh, N. & Beukes, J. 2005. Examine Coal Mine Research In South Africa. Coaltech. *International Mining*, September, Pp38-40.
- Viren, C., Andrew, K. & Sreekanth, J. 2006. Impact Of Coal Mine Dump Contaminated Soil On Elemental Uptake By Spinacia Oleracea (Spinach). *Journal Of Environmental Science & Health, Part B – Pesticides, Food Contaminants & Agricultural Wastes*: April, Vol. 41 Issue 3, Pp. 297-307.
- Wilhelm, A. 2009. Coal Is Still King. *Inside Mining*, Pp. 6-9.
- Willis, J. W. 2007. *Foundations Of Qualitative Research: Interpretive And Critical Approach*. London: Sage.

CYBERMARKETING AS A TOOL FOR LOYALTY OF STUDENT IN HIGHER EDUCATION INSTITUTIONS FROM BRASÍLIA/BRAZIL AND KENTUCKY/USA

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ABSTRACT

The present research work aimed the study of the advantages that the internet offers to the organizations in the relation with the customers, analyzing the result of the relation between the cybermarketing and the loyalty of the client with the superior teaching institutions from Brasília/Brazil and Kentucky/USA. Within the use of the ANOVA technique this research worked with two hypothesis which are the H0 that implicates in the non interference of the cybermarketing in the loyalty of the client with the teaching institutions and H1 which claims that there is an influence of cybermarketing in the customer's loyalty. The final result of this work was the acceptance of the H1 Hypothesis and the negation of the H0 hypothesis.

INTRODUCTION

Within a very competitive and demanding of assertiveness perspective, since the early years of the 21st Century, comes the Cybermarketing, a new conception of Marketing, based upon the technological innovation, making the internet and databases of the virtual world its work tools. This research work has enabled the study of the advantages that the internet offers to the organizations in engaging with the customer. With the Higher Education market heated and an intense competition, due to emerging strategies and the re-engineering, the science of marketing had to be adjusted to the new scenario. On the other hand there is a more demanding customer after the purchase of the service, requiring different treatment and seeking a more personalized service. The company, during these contacts, mediators or need specific tools for better results and win customer loyalty. Therefore, the present study analyzes the outcome of the relationship between customer loyalty and cybermarketing in higher education institutions in Brasília / Brazil and Kentucky / USA. The research was structured to begin with an introduction about the work in its first chapter, in which there is also the definition of the subject and its boundaries, its general and specific objectives, the problem formulation and its justification. In the next chapter, the theoretical and empirical research strategies for implementing the loyalty program were defined, which will, then, be interpreted in relation to the theoretical foundation. Finally, the author's conclusions about the research were presented. The aim of this study was to analyze the importance of the Cybermarketing as a tool for loyalty in the relationship program with the students among organizations in the segment of higher education in the cities of Brasília / Brazil and Kentucky / USA. As specific objectives to be achieved the research aimed to describe the concepts of Cybermarketing or Virtual Marketing; as well as demonstrate the involvement and the relationship between cybermarketing and customer loyalty.

DEVELOPMENT

The marketing combined with technology has become an important and necessary tool for the present days in modern enterprises and in this context the concept of cybermarketing emerges, which is seen as a basic tool for customer relationship, representing the latest evolution of direct marketing. Within this context, technological developments and its evolution obligated the enterprises to sustain this progress to align to their strategies as competitive advantage. Therefore, Cybermarketing arose from changes in the external environment, such as globalization and technological innovations. While the cybermarketing comes from the evolutionary process of the

classical marketing to modern marketing of the e-commerce, causing enterprises to adapt to the new competitive landscape in pursuit of the specific relationship between company and customer. Now the customer can combine the product, service, price and promotion in infinite varieties in real time, i.e., the customer can interact with the company in the process of value creation. Currently, the cyberprice is influenced by the client, since this has the option of immediate comparison of a great variety products and services. Relationship marketing gives customer an opportunity to individually decide how he wishes to communicate with the company and the technology made the communication interactive in relation to the customer's desire to relate with the company. The communication made on the Internet or Cybercommunication aims to attract, identify and build customer loyalty. The Internet has been both for company and for the customer, an effective, reliable and inevitable tool regarding communication, before the final decision in the negotiation of a particular product or service. Thus, through this communication it is advantageous to generate the momentum of the relationship with the client to maintain the loyalty, encourage future negotiations and achieve the expected return for the company. The dialogue, within the concept of cybermarketing, is the way that propagates the information or data electronically. With the advancement of computer technology, this process could be evidenced. The customer will always be the target of information, and thus is the basis of all dialogue. Through the website, the company will interact during the process of negotiation, and post-sale, in order to continuously satisfy the customer, wishing him the sensation and the conviction that he has made a good deal. Thus, the era of interactive marketing emerges where communication is bilateral and the client responds in real time, i.e., the company sees and understands what the customer says and what he wants. Therefore, to modern institutions, it is not just integrating in bilateral dialogue, it is also necessary for the company to integrate these new strategies to the internal system, having a upper management taught for the implementation and operation of these new communication processes with the key question of customer loyalty. New customers, proposed as Cybercustomer, seek excellence, speed, lower price and wide availability service station with several options and Cybercustomer knows what he wants and when he wants, so he is extremely demanding. It is mainly because it has access to all necessary information to be able to require, but before building customer loyalty, the company must know it, based on the database of the customer. With this we can calculate the level of reaction with action stimuli of the communications. With the help of software, the calculation of identifications can be faster, generating competitiveness for the company. The relationship marketing is essential to the development of leadership, customer loyalty, and rapid acceptance of new products and services to market. The creation of solid and lasting relationships is a hard task, difficult to maintain. Keeping a customer is easier and cheaper than acquiring a new. The Relationship Marketing comes to prioritize the importance of knowing how to treat a potential customer, to make him a client and to make him loyal. Loyalty is to involve expectations and overcoming them in such a way that cause the customer to deposit the level of confidence in the brand, catching a glimpse of the interest of the company. To seek involvement, we need to establish solid relationships with the customer in the long term, through a continuous process of communication that includes the data base, feedback and dialog. A company needs to develop a system of care and maintenance programs for customers and retain their loyalty and it is in this sense that this research becomes important for higher education institutions. The methodology used was the case study and the conduct of data collection was applied to direct observation, questionnaires and interviews. The field procedure involved direct access, extracting the object of study within the institutions, for material collecting and general information developed through questionnaires. The data collected were tabulated, and the results presented in tables and graphs, showing the frequency distribution of responses. These data were treated using the Likert scale for better analysis of the results. About the type of approach, it was used the ANOVA test (Analysis of Variance of two factors with multiple shows per group) to evaluate the variance of the average questionnaire applications in different institutions. The ANOVA in this research worked based on two hypotheses: the H0 implies in the no interference cybermarketing in customer loyalty with educational institutions; and H1 which states that there is rather a cybermarketing influence on customer loyalty. It has also been applied to the research the chi-square test specifically for the questions of the questionnaires, emphasizing that the significance level that will be worked on this postdoctoral research will be 0.05. For the research it was considered as population higher education institutions, and as a sample, 5 Institutions from Brasilia / Brazil and 5 Institutions from the United States / Kentucky, all chosen by the criterion of convenience. After the analysis of the data it was possible to verified that there is a strong influence on the cybermarketing loyalty among clients and higher education institutions, for according to the Calculations of the statistical technique for comparison of means the result of "P" was less than 0.05 and that was confirmed when it was found that the "F" was greater than "F" critical, so it is clear the importance of a strategic investment in tools cybermarketing for institutions of higher education remain competitive in this strained market.

CONCLUSION

After data analysis it was possible verifying that there is a strong influence of cybermarketing in the loyalty among customers and superior teaching institutions, for according to the calculations of the statistical technique of media comparison, the “P” result was under 0.05 critic, so it is proved the importance of a strategic investment in the tools of cybermarketing so that the superior teaching institutions keep competitive in this so intransigent market.

REFERENCES

ARRUDA, Danielle Miranda De Oliveira & MIRANDA, Claudia Maria Carvalho. A Evolução Do Pensamento De Marketing: Uma Análise Do Corpo Doutrinário Acumulado No Século XX. Disponível Em: [Http://Www.Rimar-Online.Org/Artigos/V3n1a3.Pdf](http://www.Rimar-Online.Org/Artigos/V3n1a3.Pdf). Acessado Em: 25/04/2011.

BERMAN, J. & KEANE, O. Law In Cyberspace. *Internet Business*. July, Issue 6, 1997.

BICKERTON, M. & PARDESI, U. Cybermarketing. Oxford: Butterworth Heineman, 2010.

BRETZKE, Mirian. Marketing De Relacionamento: Competição Em Tempo Real Com CRM . São Paulo: Atlas, 2000.

BROW, Stanley A. CRM: Uma Ferramenta Estratégica Para O Mundo *E-Business*. São Paulo: Makron Books, 2001.

BUCHLER, C. Web Warning. *Marketplace*. Vol. 20, N. 18, September 21, 2008

GIL, Antonio Carlos. Como Elaborar Projetos De Pesquisa. São Paulo: Atlas, 2002.

GORDON, Ian. *Marketing De Relacionamento; Estratégias Tecnológicas Para Conquistar Clientes E Mantê-Lo Para Sempre*. São Paulo: Futura, 1998

HOFMAN, J.; JOHNSTON, D. HANDA, S. & MORGAN, C. Cyberlaw. Cape Town: Ampersand Press, 2010.

KARSAKLIAN, Eliane. *Cybermarketing: Marketing Na Internet*. São Paulo: Atlas, 2001

KLOTTER, Philip. Administração De *Marketing: Análise, Planejamento, Implementação E Controle*. São Paulo: Atlas, 1998

LARSON, A.; FARBER, B. Estatística Aplicada. Pearson Prentice Hall. 4º Edição. São Paulo, 2010

LIMEIRA, Tânia. *E-Marketing: O Marketing Na Internet Com Casos Brasileiros*. São Paulo: Saraiva, 2003.

MCKENNA, Regis. Acesso Total: O Novo Conceito De *Marketing De Atendimento*. Rio De Janeiro: Campus, 1998.

MCKENNA, Regis. Competindo Em Tempo Real: Estratégias Vencedoras Para A Era Do Cliente Nunca Satisfeito. Rio De Janeiro: Campus, 1998.

MCKENNA, Regis. *Marketing De Relacionamento: Estratégias Bem Sucedidas Para A Era Do Cliente*. Rio De Janeiro: Campus, 1992.

PEPPERS, D. E ROGERS, M. CRM: Série *Call Center 1 To 1*. São Paulo: Makron Books, 2000.

PIEPER, K. The Four Os Of Internet Marketing. *Marketplace*, 2008.

ROBERT, L. M.; RICHARD, F. G.; JAMES, L. H. *Statistical Design And Analysis Of Experiments*. Wiley Interscience. Canadá, 2003.

ROCHA, Thelma. *A Hora Da Recompensa: Como Obter Sucesso Através Dos Programas De Fidelização*. São Paulo: Cobra, 1999.

SCHMIDT, E. *Extending Your Business To The Internet Is The Solution*, Intelligence, 2010.

SPIEGEL, Murray R. *Teoria E Probabilidade E Estatística*, Bookman, 2004.

WOODCOCK, N. E MERLIN S. *Marketing De Relacionamento, Clientes*. São Paulo, Littera Mundi, 2002.

KNOWLEDGE MANAGEMENT AND COMPETITIVE STRATEGY

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ABSTRACT

In the last three decades, the world's economy has undergone profound economic changes that have come to reflect on how economic factors affect productivity. So we have gone from an economy based on traditional resources, land, capital and labor, to an economy increasingly based on intangible assets that are of difficult financial accounting and have high impact on the productive performance of organizations. These assets are recognized as knowledge assets and have begun to have a strategic value. Peter Drucker (1993) considers that the basic economic resource is no longer the capital or the natural resources or labor, but the "knowledge" and that knowledge workers play a central role. According to this author, organizations are constantly abandoning obsolete knowledge and creating new knowledge. On this matter, Stewart (1997) adds that "knowledge has become the primary ingredient of what we produce, make, buy and sell. As a result, its management - the pursuit and development of intellectual capital, its storage, its sale, its shares - has become the most important economic task of individuals, organizations and nations" (p. 41). Nonaka and Takeuchi (1995) developed a model that relates the innovation process with tacit and explicit knowledge present in an organization. For Matos & Lopes (2008) knowledge is information to be used by the human mind allowing decision making in a given context and organizational knowledge management, understood as "knowledge management" within the organization, using new technologies, as well as the organization's ability to identify and codify knowledge, stimulate its development and facilitate its implementation" (p. 234). In this sense, strategic planning detains itself on the importance of intangible assets that are recognized as one of the key differentiating (Hoskisson, Hitt & Wan, 1999) and even competitive factors (Porter, 1986). And so, similarly to what happens with financial assets, organizations that know how to better manage and predict the evolution of these features will be the best prepared and the most competitive ones. This paper presents the results of a survey conducted with the objective of identifying the perception that decision-makers have regarding the relationship between knowledge management and organizations strategy. Although there is recognition that strategic management based on knowledge resources is crucial to achieve competitive advantage, it appears that this perception is very limited to theoretical concepts, because in practice, companies do not have medium and long term strategies, based on the evolution of these assets.

INTRODUCTION

Following the Lisbon Strategy which set as its main objective the strengthening of a more competitive EU economy, knowledge-based, the European Commission has given much importance to the issue of intangible assets, namely those related to innovation policies. The knowledge thus emerges as a strategic factor in the process of wealth creation, enterprise-wide and even global and the competitive advantage requires continuous innovation in close relation with knowledge (Nonaka & Takeuchi, 1995).

Activities in knowledge management are recognized as fundamental. The systematization of activities enables the manager, a facilitation of their work in the organization, leading to moments of creation, which are the basis for the sustainability of innovative companies. Therefore, the strategic management of knowledge

resources is now the main determinant of organizational competitiveness and as mentioned by Davenport and Prusak (1998) this advantage is sustainable and leads to superior performances (Peteraf, 1996). This paper presents the results of an exploratory study conducted among the decision makers of Portuguese companies that aims to determine the perception they have of the relationship between knowledge management and strategy of organizations.

LITERATURE REVIEW

Knowledge Management

We live in a new era, a new organizational paradigm, where knowledge has become the main competitive advantage. The literature contains numerous definitions of knowledge.

Polanyi (1958) describes knowledge as something that can be articulated in words, but language itself is not a way to transmit knowledge. When tacit knowledge is explained through language, it can be focused on reflection. The knowledge about the focused object or phenomenon is defined as focal knowledge and the knowledge that is used as a tool to manipulate or enhance what is focused is tacit knowledge. Polanyi emphasizes the functional aspect of knowledge, ie, considers knowledge as a tool by which we operate and / or gather new knowledge. Schultz (1981), Economics Nobel Prize, alluding to the power of intangible capital, said: "The decisive factors of production to improve the welfare of poor people are not space, energy and arable land; the deciding factors are the improvement quality of the population and advances in knowledge. Such improvements can be increased by proper investment in human capital "(p. 4).

Nonaka and Takeuchi (1995), consider knowledge a "dynamic human process of justifying personal belief regarding the truth" and understand as fundamental to the creation of knowledge the difference between tacit knowledge (which is obtained through practice) and explicit .Nonaka and Takeuchi (1995) state that "explicit knowledge can be articulated in formal language, including grammatical statements, mathematical expressions, manual specifications, and so on. This kind of knowledge can then be transmitted formally and informally among people "(p.65). According to the model of knowledge creation of Nonaka and Takeuchi (1995) human knowledge is created and expanded through the interaction between tacit and explicit knowledge. The tacit knowledge becomes explicit (codified), and the explicit becomes tacit in a dynamic and interactive way. These authors argue that "knowledge is created only by individuals" and also that "the organizational knowledge creation should be understood as a process that extends 'organizationally' knowledge created by individuals, crystallizing it as part of the knowledge network of the organization "(p.65).

According to Sveiby (1998), knowledge is not a scarce resource, since it can be produced by the human resources from nothing, that is why an economy based on knowledge management can have unlimited resources. Stewart (1997) states that "Knowledge is what we buy or sell. We cannot detect a smell or touch it "(p.14). Davenport and Prusak (1998) argue that it is only through knowledge that uncertainty can be reduced. Drucker (1993) states: "In the past, the sources of competitive advantage were labor and natural resources, now and in the next century, the key to build the wealth of nations is knowledge" (p.183).

For Grant (1996) knowledge is the most important resource that contributes to the success of the organization and it is through knowledge that companies can innovate, staying active and competitive. Bontis, Dragonetti, Jacobsen and Roos (1999) consider knowledge as being essential to sustainability: "Welcome to the information age, where products and companies live and die on information and the most successful companies are the ones who use their intangible assets better and faster. Knowledge and information are nowadays the drivers of company life, much more so than land, capital or labor "(p. 1). Also Porter (1998) develops the same thesis, considering that in neuralgic sectors of an economy, the determinants factors must be created by organizations, being these trained human resources factors or a scientific differentiated base.

The role that intangible assets play is important in creating value within the organization. These assets are of physical nature and create future value, often referred to as knowledge assets in economic theory (Cabrita & Vaz 2006). Organizations that fail to recognize that knowledge is power will tend not to survive in this global world.

Knowledge Management in Portugal

In Portugal there are little public or private organizations with formal programs of knowledge management, the concept is almost not covered. The exceptions that prove this rule are that large or multinational organizations introduce corporative programs from their parent companies and enable the development of knowledge management in an integrated manner. Being sure that organizations that have this type of knowledge management programs are still few in number, in Portugal, the number of which nevertheless have initiatives that somehow fit this area, are admittedly much more numerous.

Indeed, if we assume that the knowledge management as a set of coordinated initiatives, interconnected, aligned with the organizational strategy would aim the promotion of the acquisition, creation, archiving, retrieving, sharing, evaluation and use of operating knowledge, there are few organizations that do not create initiatives directed to one or more of these aspects.

Organizations consider crucial, for some time, that the communication in performance evaluation, establishing awards to encourage creative ideas, organize social gatherings for informal sharing of experiences and exposure, implement databases for archiving project reports, create pages of contacts in organization, using data mining to generate knowledge from the data they have, among other initiatives. According to Silva and Neves (2003) the Portuguese organizations are reluctant to risk themselves in a more formal and especially more intensive and systematic way in knowledge management for the following reasons:

- There is generally a passive attitude in Portugal regarding what is happening in other countries.
- There is the low level of academic training of the majority of the employed population.
- A country's competitiveness is considered to be low.
- There is an exaggerated importance given to the rank and academic titles.
- Insufficient good examples of leadership in relation to the creation and trusted environments.
- There are strong sub-cultures, well-creased in Portuguese organizations with divisions between hierarchical levels.
- International economic situation, marked by great uncertainty.
- Often there is put a huge emphasis on technology.
- The national culture is mainly concerned with short-term goals.
- The profile of the Portuguese organizations that are dominated by micro and small enterprises.

Knowledge management in Portugal is just in its initial stage, regarding awareness of the crucial role that it already represents in the most competitive countries.

EMPIRICAL RESEARCH

Methodological Framework

Based on the objectives of this exploratory research, identification of field analysis was conducted, composed "by opinion of 13 Portuguese opinion makers ". The sample was determined using a targeted sampling method, being chosen the field analysis depending on the features and accessibility.

Semi-directed interviews were applied since this was the technique that best guarantees the collection of as much information about the problem under investigation. The design of the interview guide was a long process in which the questions were modifying and making successive trials in the test population, in a process of continuous feedback. Following the methodological procedures set out above, we used content analysis, according to Bardin (2009), with the following steps of content analysis: pre-analysis, content analysis, processing of the interpretation of the results. As one of the techniques mentioned by several authors, the analysis of categories, according to Bardin (2009), is the technique used in this research. We started by defining the categories guiding the questions asked to respondents, followed by the analysis of the collected material for interpretation of the dominant themes in each category.

Presentation of Research Answers Most representative

Question 1: What is your definition of "Knowledge"?

“Knowledge is everything that results from the interaction of man with his environment oriented to specific objectives and applied usefulness.”

“Knowledge is transforming theories into reality.”

“Knowledge is a familiarity with someone or something, which can include facts, information, descriptions, or skills acquired through experience or education. It can refer to the theoretical or practical understanding of a thing. It can be implicit (as with practical skill or expertise) or explicit (as with the theoretical understanding of something).“

“Intangible active, immaterial, intangible, tacit or explicit, with the potential to influence the performance, and for this reason, must be identified, stored, replicated and made available.”

“It is an intangible resource, developed and built in a personal and social way, based on formal and informal learning, as well as the experiences we have during the existence and has an orientation towards action, as it is on this basis that we take decisions that solve problems, etc.”

“The ability to interpret adequately the information existing in a given context.”

“In the view of organizational or management the most concise definition is the one of Sveiby (1997): "capacity to act.”

“Add something new from positive to what already exists.”

“Knowledge is obtaining new information.”

“The way in which an individual performs an action.”

“All intangible assets of an organization.”

Inference

Knowledge is: everything; transforming theories into reality; facts, information, descriptions, or skills; intangible active, immaterial, tacit or explicit; is an intangible resource; capacity to act; add something new; obtaining new information; performs an action.

Question 2: What is your definition of "Knowledge Management"?

“Knowledge Management implies the process from generation to generation, data, information involving a process of transformation of added value that is knowledge itself, and how this transformation process is

strategically integrated in the mission of the organizations. That is, going from generation to transmission and integration in organizational memories.”

“The need to systematize the practices and advances that are being made.”

“Knowledge Management comprises a range of strategies and practices used by an organization to identify, create, represent, distribute and enable adoption of ideas and experiences. Such as insights and experiences that allow knowledge embedded in individuals or in organizational routines.”

“Management of intangible assets, tacit or explicit, with the potential to influence the performance organizer, and that for this reason, must be identified, stored, replicated and made available.”

“Knowledge management is, first, an organizational strategy defined and composed and based on a set of practices (which may take a more formal or informal nature) that enable and lead to the development of a set of processes, including the creation / acquisition of knowledge, sharing of knowledge, knowledge storage, retrieval and use of knowledge.”

“To ensure that the relevant knowledge of each individual is not lost and is properly channeled to where it is most needed at any given time.”

“Set of activities (acquisition, creation, distribution, storage and application) that maximizes the efficient use of organizational knowledge.”

“Ability to manage information to build knowledge.”

“The way organizations manage the knowledge that they acquire.”

“Management of a crucial asset in an organization.”

“Managing the most important asset of an organization.”

Inference

Knowledge Management is: process from generation to generation, data, information; transmission and integration in organizational memories; systematize practices; strategies and practices used by an organization to identify, create, represent, distribute and enable adoption of ideas and experiences; management of intangible assets, tacit or explicit; an organizational strategy; a way to ensure that the relevant knowledge of each individual is not lost and is properly channeled; set of activities that maximize the efficiency of use of organizational knowledge; ability to manage information; the way organizations manage the knowledge; management of a crucial and most important asset.

Question 3: What are the most strategic topics in the area of Knowledge Management?

“KM is a way to generate economic gains without KM in a global society the result is failure.”

“Quality and productivity.”

“Find mechanisms of transmission between KM and results.”

“Productivity, quality, profitability, competitiveness, image and reputation.”

“Competitiveness, employee satisfaction, productivity, economic growth, etc.”

“The immediate cost reduction through retirement / dismissal of employees and seniors with higher earnings, limits the future profitability of organizations by loss of knowledge”.

“Economic growth, competitiveness, productivity, differentiation.”

Inference

Most strategic topics: generate economic gains; quality and productivity; mechanisms of transmission between KM and results; profitability, competitiveness, image and reputation; employee satisfaction; economic growth; immediate cost reduction; differentiation.

Question 4: What is the relationship between Knowledge Management and company strategy?

“If the strategic orientation is not the KM an organization will hardly survive in a complex and competitive environment.”

“The ability to compete in the market and win new markets is important.”

“The relationship of intellectual capital with business strategy, rather than the process of knowledge management.”

“The KM must be designed, defined and delineated based on a vision, mission and overall strategy of an organization.”

“KM that does not receive the approval by the strategy is a waste of time. The strategy is the umbrella under which all organizational initiatives are kept save.”

“The implementation strategy of the company depends on good knowledge management.”

Inference

Relationship between Knowledge Management and company strategy: to survive in a complex and competitive environment; the ability to compete in the market and win new markets; the relationship of intellectual capital with business strategy; vision, mission and overall strategy of an organization; strategy is the umbrella under which all harbor organizational initiatives keep save; implementation strategy of the company depends on good KM.

CONCLUSION

Throughout this research it was verified that respondents makers have the notion of what is meant by knowledge and the importance of knowledge management to organizational competitiveness. This notion is very close to that which is transmitted by the main authors of literature in this area. There is the notion that knowledge is associated to the skills of individuals, distinguishing between individual knowledge (tacit knowledge) and organizational knowledge (explicit). Knowledge comes with a strong connection to information and is therefore highly valued. Knowledge is a source of competitive advantage and should be a decisive strategy. And it must be sustained in knowledge management.

Economic growth, productivity, profit, quality, differentiation, cost reduction, image and reputation and employee satisfaction are seen as the most important topics of the relationship between strategy and knowledge management. Knowledge is only valuable when used and it is much more valuable when used to create organizational value and hence competitive advantage. However, despite the awareness of decision-makers the question remains: Why are there so few formal programs of knowledge management in Portuguese organizations? And why doesn't, for this reason, knowledge management arise in association with the competitive strategy? In another exploratory research we will try to find the answer to these questions that we believe are strategic for the competitiveness of companies.

REFERENCES

- Bardin, L. (2009). *Análise de Conteúdo*. Lisboa: Edições 70, 2009.
- Bontis N., Dragonetti N.C., Jacobsen K., & Ross G., (1999). The knowledge toolbox: a review of the tools available to measure and manage intangible resources, *European Management Journal*, Vol. 17(4).
- Cabrita, M., & Vaz, J. (2006). Intellectual Capital and Value Creation: Evidence from the Portuguese banking industry. *The Electronic Journal of Knowledge Management*, 4(1), 11-20. Consulted on the 12th of April, 2013, at: <http://www.ejkm.com>
- Davenport, T., & Prusak, L. (1998). *Working Knowledge: How organizations manage what they know*. Boston: Harvard Business School Press.
- Drucker, P. (1993). *Post-Capitalist Society*. New York: Harper Collins Publishers.
- Grant, R. M. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17 (Winter Special Issue), 109–122.
- Hoskisson, R.E., Hitt, M.A., Wan, W.P. & Yiu, D. (1999). Swings of a Pendulum: Theory and research in strategic management. *Journal of Management*, 25, 417-456. <http://dx.doi.org/10.1177/014920639902500307>
- Matos, F., & Lopes, A. (2008). Gestão do Capital Intelectual – A Nova Vantagem Competitiva das Organizações. *Revista Comportamento Organizacional e Gestão*, 14(2), 233-245. Lisboa, ISPA.
- Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. New York: Oxford University Press.
- OECD - The Measurement of Scientific and Technological Activities: Guidelines for Collecting and Interpreting Innovation Data. Oslo Manual. Third Edition, OECD, Paris, (2005): 146-177.
- Quinn, J. B. (1992). *Intelligent Enterprise: A Knowledge and Service Based Paradigm for Industry*. New York: The Free Press.
- Petrash, G. (1996) Dow's journey to a knowledge value management culture. *European Management Journal*, 14(4), 365-373. [http://dx.doi.org/10.1016/0263-2373\(96\)00023-0](http://dx.doi.org/10.1016/0263-2373(96)00023-0)
- Polanyi, M. (1958). *Personal Knowledge: Towards a Post-Critical Philosophy*. University of Chicago Press, Chicago
- Porter, M. (1986). *Estratégia Competitiva: Técnicas para análise de indústrias e da concorrência*, (8ª Ed). Brasil, Rio de Janeiro: Editora Campus (Tradução do original em Inglês *Competitive Strategy*, 1980).
- Porter, M. (1998). *On Competition*. Boston: Harvard Business School.
- Schultz, T. W. (1981). *Investing in People: The Economics of Population Quality*. California. University of California Press.
- Silva, R. V.; Neves, A. (2003). *Gestão de Empresas na Era do Conhecimento*. Lisboa: Edições Silabo.
- Stewart, T. A. (1997). *Intellectual Capital: The New Wealth of Organizations*. New York: Doubleday Currency.
- Sveiby, K. E. (1997). *The New Organizational Wealth: Managing and Measuring Knowledge Based Assets*. San Francisco: Berrett Koehler. Consulted on the 3rd of May, 2011, at: <http://www.sveiby.com/articles/MeasureIntangibleAssets.html>

THE FUTURE OF THE HOTEL GROUP BUSINESS SALES FORCE: EVOLVING TOWARD OBSOLESCENCE?

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ABSTRACT

In approximately 2003, Sales, one of the world's oldest professions, encountered cataclysmic change. Static Web 1.0 evolved to dynamically interactive Web2.0 and the rise of social media increased informational power to buyers. In the hotel business, group salespeople began to realize that cold-calling was dying – buyers would no longer take phone calls. Concomitantly, meeting planner buyers began to hire third-party intermediaries who quickly separated sellers from end-user buyers. Relationship selling began to suffer and perplexity arose. What to do? This paper offers two models to provide a preliminary map to the new world of buying and selling with a focus on hotel group sellers interacting with meeting planner buyers.

INTRODUCTION

This is the story of a significant shift in the way sales, in general, and hotel group sales, in particular, is evolving. The strategic implications invite a rethinking of organizational structure aimed at elimination of silos and the convergence of marketing, sales, and hotel revenue management synchronized to generate total topline revenue. The managerial implications of this shift impacts sales force restructuring, motivation, training, and possible elimination.

If salespeople do not generate new business, then their rationale for existence ceases. From the hotel sales force point of view, today's hotel group business sales forces are being intermediated from initial direct contact with their end-user meeting planner customers. Sales forces have, over the last decade and a half, evolved from transactional sellers to consultative/relationship based sellers which require a deep partnership with buyers which begins from the onset of first contact with a potential buyer. Just when sales forces were successfully utilizing consultative selling methodologies, the world has again changed. Today, third-party intermediaries are separating sales people from initial contact with end-user buyers not only physically, but from fully developing relationships prior to final negotiations. Increasingly, meeting business is brought to the hotel's doorstep by intermediaries and not by direct actions of hotel group salespeople.

If buyers have control of market information and their hired third-party buyer representatives, then they do not need a hotel salesperson. What they need is someone at the hotel to take their order. From the end-user buyer meeting planner's point of view, they welcome third-party intermediaries who promise to do all of the leg-work of meeting site selection at no cost to the meeting planner. Third-party intermediaries are seasoned former meeting planning and/or hotel sales veterans who aggressively negotiate price concessions and earn commissions from the hotel. If a particular hotel is fortunate to be selected on the *Short-List* (a few highly screened properties), the final selling negotiations can be facilitated by non-salespeople - hotel staff trained in the final customization of order-taking.

Today's buyers are aggressively screening-out old-fashion cold-calls initiated by hotel salespeople and consider them a form of *Interruption Marketing*. These buyers prefer to obtain information from social media

word-of-mouth or general Internet search. It is already apparent that buyers do not want to be *found* by sellers, but want to *find* them. The *cold-call* is rapidly dying or already dead, and that the tables have been turned 180 degrees as the previous seller, *Hunter*, is becoming the *Hunted*.

Thus, relationship dependent selling methodologies are becoming increasingly ineffective. The hotel sales forces are becoming confused and frustrated as previously effective consultative/relationship selling does not seem to work as in the past. Simultaneously, hotel ownership, general management, and sales/marketing leadership continue to demand their salespeople practice the previous and increasingly impotent selling methodology. And, this same management tends to blame less effective sales results on the salespeople instead of recognizing that in the Social Era, selling methodologies have evolved away from once familiar, if not habitual selling practices.

If hotel group salespeople are increasing intermediated from buyers, are increasingly being ignored by potential buyers, and are not perceived by buyers as adding value, then their jobs are clearly placed in peril.

This paper is both a conceptual and a qualitative/exploratory study. From the literature, the author designs two models. Then in the qualitative study, he takes the models to the hotel sales field to ascertain their accuracy by directly interviewing hotel sales practitioners. This study reports the results of a qualitative/exploratory study to understand today's general dynamics operating within buying/selling relationships and between meeting planner buyers and local hotel group sales forces. We focus on the local hotel group sales force and indirectly imply that trends here will, in the future, expand into other hospitality sub-industries if not into other non-hospitality industries.

Purpose and Research Questions

Sub-Purpose one. To help practicing in-house consultative hotel salespeople, as well as current hotel academics better understand today's buying/selling environment. To this objective, we develop a visual model summarizing these changes, *Third-Party Intermediation Model* (Figure 1).

Research question one. Are *consultative* hotel salespeople becoming obsolescent by being *commoditized* out of their traditional and key relationship building value-added role?

Sub-Purpose two. To develop a current reference map, the *Combined Buying/Selling Exchange Model* (Figure 2), that serves to identify the changing dynamic interacting forces.

Research question two. What does the beginning to end buying/selling exchange process look-like today? And, how does it compare to a previously successful and traditionally practiced consultative relationship selling approach? Has the power in the buying/Selling process shifted to the Buyer?

Sub-Purpose three. To preliminarily verify both the *Third-Party Intermediation Model* developed in Sub-Purpose One (Figure 1) and the *Combined Buying/Selling Exchange Model* developed in Sub-Purpose Two (Figure 2). Preliminary verification is accomplished by a qualitative exploratory study.

Research question three. Do the two conceptual models – *Third-Party Intermediation Model* (Figure 1) and *Combined Buying/Selling Exchange Model* (Figure 2) correspond with current meeting buying/selling realities found in the industry?

Through a literature review, we will first provide evidence to answer Research Questions One and Two as well as develop two descriptive models. We will then address Research Question Three through a qualitative study.

Significance

What does a study of U.S. based local hotel sales forces have to do with global hotel group business markets? First, within the global travel and tourism industry, hotel meetings and convention sales is big business. Second,

U.S. hotel corporations will undoubtedly influence global sales and marketing trends. Third, intermediation forces, separating traditional hotel sellers and meeting planner buyers is rapidly expanding globally.

Like nested Russian dolls, worldwide Travel and Tourism account for approximately US \$2 trillion or 2.8% direct spending (9% adding indirect spending) of global GDP. U.S. Travel and Tourism accounts from approximately US \$708 billion or 35% of the global direct spending (WTTC, 2012, February 28). And, within the U.S. Travel and Tourism industry, a 2011 study by the *Convention Industry Council* (CIC) estimated that U.S. Meetings and Conventions account for US \$ 108 billion or approximately 16% of U.S. Travel and Tourism (CIC, 2011).

Arguably, most hospitality scholars would agree that U.S. based hotel corporations dominate both geographic presence and exert a disproportionate influence on worldwide hotel management best practices. For example, *Hotels Magazine's* annual global survey indicates the world's leading hotel corporations, ranked by number of hotel rooms listing: #2 *Marriott*, #3 *Hilton*, and # 7 *Starwood*. As a major exception, *Intercontinental Group* of Denham, England, with a predominance of U.S. dominant brands, ranks # 1 (Hotels, 2012, July/August).

Additionally, the third-party and other intermediary forces mentioned above are significantly increasing in global reach and influence. Firms such as *HelmsBriscoe* and *Cvent* have been recently experiencing 40% -50% annual revenue growth and with increasing global presence (Sturken, 2013a, January 1). So, the trend outlined in this present study is very likely to be repeated globally.

Limitations

First, the design of conceptual models (Figures 1 and 2) are conceptual maps drawn from the literature. And, this, in turn, relies upon the author's ability to synthesize the literature with his 18 years of general and hotel sales experience and with his additional 24 years of hospitality sales teaching and research.

Second, the qualitative study which tests the two conceptual models has, as many qualitative studies, a limited population of 21 stratified and industry knowledgeable interviewees. And it must be remembered that the purpose of qualitative studies is never to generalize to larger populations, but to provide insights for further, hopefully, qualitative studies.

Third, this paper does not address B2C (Business to Consumer) hotel sales. It focuses on B2B (Business to Business) hotel group sales which averages about 60% of upper STR category (STR, 2013) hotels and resort revenue.

LITERATURE REVIEW

Research Question One – Commoditization and Salesperson Obsolescence

Commoditization in past research. The opposite of *differentiation* is *commoditization*. *Consultative/Relationship Selling* depends upon differentiation. Neil Rackham (Rackham and De Vincentis, 1999) observes that when a product becomes commoditized or looks like and is of a similar actual or perceived quality as its competitor products, then the buying decision is based not on unique attributes, but price.

A product/service today is composed of several component parts: The product, the company, and the salesperson. The product/service is composed of both tangible and intangible parts. The positioned company brand guarantees certainty, service, and backing the product/service. The salesperson is the messenger and the manner in which they deliver the message builds relationship/trust connections with the buyer. All of these component parts can, if not maintained as unique and differentiated, quickly become perceived by the buyer as commodities.

Hotel group salespeople have been practicing consultative and relationship selling for the last 15 years or so. This selling methodology enabled them to establish relationships with potential buyers at the beginning of

the buying/selling cycle and carry these relationships through the implementation and after-sale management of a contracted meeting. Having established strong relationships, these salespeople were able to develop repeat and referral business from their satisfied customers. But, the old world of the consultative salesperson based on established relationships and differentiation is changing. Commoditization is trending both for the hotel/resorts themselves and for the hotel group salesperson.

Commoditization directly affecting traditional consultative hotel salespeople. As a result of third-party intermediaries serving as a barrier, buyers and sellers are separated from early and deep communication with each other. This separation, along with a barrage of electronic standardized RFPs (*Requests for Proposals*) generated through computerized platforms has caused buyers to begin viewing salespeople as commodities – one is interchangeable with the other. And, why not? Neither the buyer nor the seller personally knows the other and relationship or consultative selling is impossible. Only if the seller reaches the *short-list* (preferred four or five vendors) will a salesperson's skills at customizing the hotel venue to meet a buyer's deepest and most subtle needs have an opportunity to shine (See Figure 2). As a note on RFPs, 63% of 382 respondents in a *Successful Meeting's Magazine* survey said that online Requests for Proposals were growing "somewhat" to "very much" more important in 2013 (Jakoson, 2013, January).

Commoditization is increasing and replacing previous differentiated hotel products/services, I believe, for three primary reasons:

First, hotel corporations – the big three who dominate, Hilton, Marriott, and Starwood – which this author will use as a proxy for all meeting/group hotels, have *me-too* brands in all of the six *chain* STR scale categories (STR, 2013). Spread relatively evenly across the top three STR tiers, Hilton has seven brands, Marriott has eight, and Starwood has nine. Note: STR has a seven level category system - *Independents* is the seventh level.

True, each individual brand and each hotel within that brand is unique in location and architecture, so they are not true commodities. But, arguably, brand, service and experience levels is relatively the same in each of the STR scale categories. And, this commoditization has been exacerbated by the industry's, misguided I believe, inexorable affinity to the concept of *Best Practices* – we externally share our competitive advantage with others who readily copy.

Second, consultative hotel salespeople - no longer can differentiate themselves through relationship building with the end-user buyer. The primary reason is the rise of Third-Party Intermediaries who place a barrier between them and the buyer.

True, at the mid-point of the buying/selling exchange process (see Figure 2), the seller meets the buyer for the first time. From this point and through the process, sellers have an opportunity to build relationships.

Third, third-party intermediaries. Today, the buying/selling exchange process has been intermediated by the growing power of third-parties. Third-party intermediaries are hired by and loyal to end-user meeting planner buyers and the buying/selling process has been severed at the mid-point (see Figure 1). Hotel sellers often don't even know the name of these end-user buyers until the sellers have passed through a third-party controlled gauntlet of standardized RFP (*Requests for Proposals*). Thus, the seller has little opportunity to begin establishing relationships with the end-user buyer until the point they are perhaps selected among the few, put on a short-list, and invited to sit across the negotiating table with the end-user buyer.

Cost-cutting within buyer organizations invites sub-contracting. Additionally, formal meeting planning staffs are being cut and the meeting planner is often a person – not a formal meeting planner, but a person wearing multiple hats. If you were inexperienced, and the hotel paid the cost of a third-party intermediary, wouldn't you use them? An inexperienced person wants certainty, thus hiring such firms is simply free help (Sturken, 2012, February 1).

While OTAs (Online Travel Agencies), such as *Expedia* and *Travelocity*, offer a similar barrier between the selling hotel and individual traveler buyers (B2C markets), in this study we are concerned with third-party intermediaries or *Meeting Buyer Representation Firms* (a term coined by this author) such as *Helms*

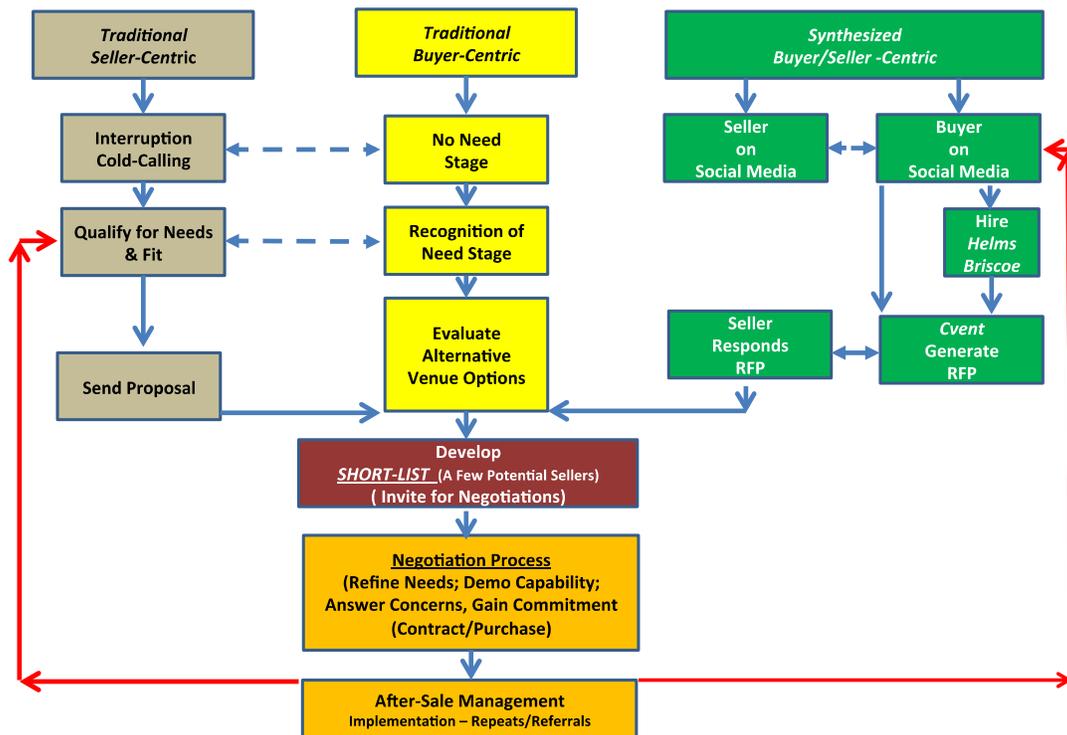


Figure 2: Cobined Buying/Selling Exchange Model

Research Question Three – Do the Two Conceptual Models (Figures 1 and 2) Correspond with Practice?

A qualitative study was designed to determine if the two models resulting from the Literature Review (Above) correspond to practices and perceived realities in the hotel Industry?

QUALITATIVE RESEARCH STUDY

Methodology

Qualitative/Exploratory study. As noted above, rapid change is occurring in the buying/selling process associated with hotel salespeople selling to meeting planning buyers. In such a fluid situation, exploratory studies attempt to learn the right questions to ask so that they can be followed up by a larger qualitative study. This qualitative/exploratory study is part one of a planned part two quantitative follow-up study.

Participants. Between September 1 and December 31, 2012, twenty-one approximate one and one half hour face-to-face interviews were conducted. The author guided the interview sessions and digitally recorded.

Hotel/Resort Properties. The 21 participants were stratified to provide a robust cross section of views. Group sales forces generally operate in three top-tiers of the lodging industry. *Smith Travel Research (STR)* scales seven categories of properties based on the following 2012 U.S. *Average Daily Room Rate (ADR)* (STR, 2013): # 1, *Luxury Chains* at \$265 - # 2, *Upper Upscale Chains* at \$158 - # 3 *Upscale Chains* at \$119 - # 4,

Upper Midscale Chains at \$98 - # 5 Midscale Chains at \$78 - # 6, Economy Chains at \$54, and # 7, Independents at \$116. All 21 interviews were in properties classified in the top three STR categories.

Interviewee Job Titles. Sixteen of the interviews were with people directly involved in hotel sales: Seven salespeople, and nine Directors. Five interviews were with people involved in sales support: Three CSMs (Convention Services Managers) and two hotel revenue managers.

Process/Apparatus. Interviews were guided by the author of this study using five major topic areas, guiding questions that related to the two conceptual models discussed above. These five questions were asked of all participants. Resulting conversations were digitally recorded and transcripts later developed. Transcripts were analyzed using qualitative software, *Nvivo 10* (Nvivo10, 2012). Essentially, qualitative software eases a researcher's ability to search through large amounts of text and locate exemplar statements and to cluster, tag, or categorize reoccurring themes.

Findings & Results

Findings. The following selected/representative tags and categories were generated from the analyzed text of the 21 interviews. Here are the top ten in no particular order:

1. Buyer perceived commoditization of hotel experiences (not actual commoditization of the hotel itself),
2. Price-centric negotiations by third-party intermediaries is rapacious and costs 10% to 20% commissions paid from hotel. And, this is after they have already beaten us down on room and other rates.
3. Relationship selling is dying as we are being separated from the buyers by the buyer's own refusal to take phone calls as well as by third-parties withholding the names.
4. Buyers are unreachable by cold-calls but management still requires these low ROI (Return on Investment) activities.
5. Much of the salesperson's time is spent answering massive deluges of RFPs and often seller never hears back from person to whom RFP was sent.
6. Change is happening so fast today, one can never fully adjust to one change before another occurs.
7. Revenue management is seizing power over the salesperson's pricing.
8. Meeting planners seem less professional today than a few years back,
9. I think you should reconsider advising anyone to go into hotel sales today.
10. Hotel sales is not what it was a few years ago, my relationships are dying and I don't seem to be able to generate new ones as easily as before.

Summary of Findings. The findings confirm the general description contained in the two models, Figures 1 and 2.

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Conclusions

Addressing Research Question One. . Are *consultative* hotel salespeople becoming obsolescent by being *commoditized* out of their traditional and key relationship building value-added role? Yes. Will hotel group salespeople disappear? No, but having a sales force located at each property is an expensive proposition. Instead, since Convention Service Managers (CSM) coordinate and customize meetings coming to their specific properties, perhaps these CSMs could assume many of the previous roles served by hotel group salespeople. Remember that the business is increasing being delivered to the hotel doorstep by third-parties.

Perhaps displaced salespeople will migrate to selling multiple properties in a specific geographic area. For example, Marriott, Hilton and many other top-tier companies began experimenting with *Cluster-Selling*. Under this concept, the family of brands within each of the hotel corporations is represented in geographic areas. This is not universally practiced by lower tier hotel companies.

Addressing Research Question Two. What does the beginning to end buying/selling exchange process look-like today? And, how does it compare to a previously successful and traditionally practiced consultative relationship selling approach? Has the power in the buying/Selling process shifted to the Buyer? Yes, informational power has shifted to the buyer, thus sellers must adapt and parallel their selling with how buyers buy. Figure 2 outlines a combined or synthesis buying/selling model. For example, if buyers no longer receive cold-calls and prefer to locate potential vendors through social media, then sellers need to join and operate in the same discussion groups in which the buyers participate. By becoming content experts and giving valuable advice versus directly selling, these sellers will earn a reputation that will attract buyers. Additionally, sellers need to participate in content through writing Blogs. Note: this is generally the job of a marketing department, but in the hospitality industry, sellers often don't have this kind of help. Sellers need to adopt a *Pull* versus *Push* strategy.

Addressing Research Question Three. Do the two conceptual models – *Third-Party Intermediation Model* (Figure 1) and *Combined Buying/Selling Exchange Model* (Figure 2) correspond with current meeting buying/selling realities found in the industry? Yes, as well as any representative map correspond to reality. These models were initially conceived from a review of the literature. Then over the course of 21 interviews, they were iteratively refined. More research is needed, however, the author is satisfied that these models are fairly accurate and correspond closely with reality.

Implications

Salespeople and sales organization can significantly improve sales performance by more accurately aligning themselves with current and evolving buyer practices and preferences. By not aligning and evolving, implications for individual sales people, sales management, and their companies are painfully obvious. A sales force is an expensive operation. On a positive note, aligning with the changed environment is a ticket to competitive advantage.

Recommendations

For further research, the findings in this qualitative/exploratory study should stimulate a larger qualitative study.

For the potential obsolescence of and dismissal of salespeople working in individual hotel properties, this study should be a warning to prepare for a changed future.

For hotel management, sales and marketing organization within their individual properties deserves a deep rethinking. Specifically, how does one use their staff in new ways and aligned with the changed buying environment. Remember that the buyers call the shots – so adaption is imperative. And, at stake is competitive survival at a minimum.

For hospitality educators, it's time to rethink what you are teaching your students. The antiquated textbooks and other material available certainly will not help you. Maybe it's time to do externships and experience industry realities.

For all readers interested in the future of selling, changes outlined in this study will probably be replicated in other industries. So, be prepared.

REFERENCES

- CIC. (2011).The economic significance of meetings to the U.S. economy. Retrieved: http://www.conventionindustry.org/ResearchInfo/EconomicSignificanceStudy/ES_SFAQ.aspx
- Edelstein, Loren. G. (2012, November 1). "Planners peeved by cold-calls." *Meetings & Convention Magazine*. Retrieved: <http://www.meetings-conventions.com/articles/planners-peeved-by-cold-calls/c51466.aspx>.

Hotels. (2012, July/August). "Hotels 325." *Hotels Magazine*. Retrieved: http://www.marketingandtechnology.com/repository/webFeatures/HOTELS/023_h1207_Special_Report_325_iPad.pdf

Jacobson, Leo. (2013, January). "2013 meetings industry forecast." *Successful Meetings Magazine*.

Nvivo 10. (2012). *Qualitative research software*. QSR International (Americas) Inc. Burlington, MA.

STR. (2013). "Hotel industry analytical foundations." The Share Center Workshop – PowerPoint Presentations. Smith Travel Research Center.

Sturken, Cheryl-Anne. (2012, February 1). "The power of third-party planners." *Meetings & Conventions Magazine*, February 1, 2012. Retrieved: <http://www.meetings-conventions.com/print.aspx?id=46174>

Sturken, Cheryl-Anne. (2013a, January 1). "The rise of third-party meeting-planning firms." *Meetings & Conventions Magazine*, January 1, 2012. Retrieved: <http://www.meetings-conventions.com/articles/the-rise-of-third-party-meeting-planning-firms/a52274.aspx>

Sturken, Cheryl-Anne. (2013b, January 1). "How hotels and visitor Bureaus are wooing third parties." *Meetings & Conventions Magazine*, January 1, 2012. Retrieved: <http://www.meetings-conventions.com/articles/how-hotels-and-visitor-bureaus-are-wooing-third-parties/a52276.aspx>.

WTTC. (2012, February 28). *Global Travel & Tourism industry defies economic uncertainty by outperforming the global economy in 2012 – and predicted to do it again in 2013*. Retrieved: <http://www.wttc.org/news-media/news-archive/2013/global-travel-tourism-industry-defies-economic-uncertainty-outpe/>

METHODS TO EVALUATE AND COMPARE EFFICIENCY IN INFRASTRUCTURE AND TRANSPORTATION CONCESSIONS – AN EXPLORATORY ANALYSIS

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ABSTRACT

The current paper shows recent researches on the transportation sector, focusing on performance measurements. We intent to discuss the most important methods used to measure and compare performances. We show the most used techniques to benchmark the transportation services' performance. This paper aims to discuss the use of these tools in order to evaluate the concessionaries of transportation infrastructure or services. It focus on the ways to perform measurements to detect performance impacts on the annual increase of the tax rates which concessionaries area allowed to charge. We present papers that use DEA (data envelopment analysis) method, stochastic frontier analysis and others, showing some advantages and disadvantages in the use of each one. Concluding, we propose a fast analysis of the "X" factor in order to review the concession contracts.

INTRODUCTION

The process of privatizing basic infrastructure services has been held in Brazil since the 1990s and is causing a significant impact on the availability of services such as: telephony, electricity and transportation. The whole population felt the impact of it. According to the current situation, private investments in infrastructure became very important to the country's continuous economic growth, representing an opportunity for both government and investors.

Based on the present scenario, regulations play an important role in order to improve quality of the services available. The contracts signed between the government and investors are regulation tool and play a crucial role in the process. The contracts set the duties of all the parts involved in the process and represent the main regulation system.

Once taking the contracts under consideration, it is possible to state that the development of concession contracts is a way to address enormous challenges to all: regulators, investors, government, researchers and, after all, to society as a whole. Due to such challenges, several studies have been done in order to indicate what would actually be a good contract. Many authors agree that it is demanding to develop tools for assessing concessionaires' quality and performance, so the outcomes would take to rewards or punishments (Senna and Michel, 2006; Hensher and Stanley, 2010; Longva and Stanley, 2010; Macário, 2010).

The question to be answered is: how would it be possible to evaluate and compare concessions, once, in general, they are inserted in absolutely different scenarios even when belonging to the same sector? Road controllers are a good example of it. It is difficult to compare the performance of a concessionaire which runs a major highway with many lanes going in different directions and one that is in charge of a bridge or of a small

highway with a mountainous topography. Moreover, it is worth finding ways to have the evaluation and comparison process, reflecting the revenues gotten from the investments done by private companies. It can destabilize the investments in process or, on the other hand, stimulate performances that go beyond the expectations.

Benchmarking methods can be useful tools in order to push concessionaries - investing in public infrastructure - towards higher efficiency rates. Competition, in real terms, is not attractive due to its high costs once improving the infrastructure of roads, ports, etc, demands huge investments. So, benchmarking can create an artificial competition process among concessionaries. Thus, using a tool capable to reduce the effects of the asymmetric information from concessionaries and regulators would encourage innovative behaviors, once the companies' profitability is linked to good rates of benchmark comparisons (Bogetoft and Otto, 2011). The current article seeks for ways to evaluate the performance of such concessionaries.

Through literature review and by analyzing contracts and regulatory agencies, the present paper allowed identifying how concessionaries' performances have been assessed and what has been done with the outcomes from such assessment.

The article was divided into four sections. Section 2 presents some assumptions on performance's indicators, quality and evaluation methods. Section 3 shows some applications of methods in use. The last section discusses conclusions about the points that demand detailed studies in order help meeting good methods for evaluating and comparing performances.

PERFORMANCE EVALUATION - INDICATORS AND METHODS

The association between productivity evaluation and quality control has been widely discussed and applied since the industrial age had started. This sector of the economy is where the bases of the existing techniques lay on. Since Ford's production system and the principles of Taylor (Scientific Management), production processes have been suffering direct influence from quality management and production techniques. After World War II lack of raw material, manpower and weather issues forced industries to produce in a much more efficient way (Juran, 1997). Service sectors, especially those concerning infrastructure, have been managed by the government and treated as a kind of social duty as well as have been seen by the industry as an activity that does not promote value adding and suffers from the slowness in applying quality management and production techniques. Some areas of excellence are emerging from the bases of modern concepts that address the addition of services to trading processes as well as to the recent privatization of some public sectors such as telecommunications, electricity and transportation (Juran, 1997; Silva et al., 2006; Macedo, 2012). New techniques have been used throughout the last decades in order to encourage service providers to improve their performance. Such case applies to airports that have been using "benchmarking" as a tool to push productivity increase (Graham, 2005). The techniques and their applications will be discussed in the following section.

Performance Indicators

When talking about productivity, it is understood that there is a relationship between inputs and products/services. Such simplistic viewpoint can hide the complexity behind the production processes as well as the different performance rates among companies. Differences are particularly significant when related to environmental management and quality in order to properly meet customers' demands. The dynamic scenario established by the modern globalized world brings up the task of measuring more complex performances strongly dependent on indicators used in the assessment process (Behn, 2003; Silva, 2006).

Performance indicators and quality is the spinal cord of measurement systems. It is crucial that indicators reflect the goals organizations are aiming at. So, the first step in order to achieve a good performance review lays on a clear definition of what goals should be measurable in terms of quantity and deliver time (Müller, 2003; Hensher and Stanley, 2010; Longva and Stanley, 2010).

Choosing good indicators as well as finding ways to get specific data are important items to be noticed when developing a system to measure performance rates. Due to the specificity of different sectors and companies, there are several techniques used to find proper indicators. Some of these techniques are: focus groups, brainstorming, QFD (Quality Function Deployment) and others. Although the current study does not aim to revise such techniques, the next section focuses on methods for evaluating and comparing companies' performances and processes.

Methods and tools to achieve performance analysis

Any company, no matter its size, deals with several inputs and outputs. Given the diversity of inputs and outputs involving production and services, it is possible to establish partial production measurements in cases when only part of the goods, services or supplies are taken under consideration throughout the companies' evaluation. Such measurements are known as Partial Factor Productivity (PFP) and allow a limited analysis of the effects caused by changes. Nevertheless, they are useful to identify - in time-, the immediate effects from changes in the production system (Aragon, 1995; Costa, 1996; Azambuja, 2002).

Moreover, several authors state that it is necessary to measure the impact of changes in productivity, once a single change in one of the processes can have an impact over the entire organization. The measurements known as Total Factor Productivity (TFP) globally assess the impact of changes and point out the disadvantages of not identifying specific impacts (Costa, 1996; Bonelli and Fonseca, 1998; Waters, 2002; Azambuja, 2002).

When it comes to evaluating the performance of concessionaires or service providers, such as transportation infrastructure, some authors use specific techniques to estimate cost functions as a way to compare different factors among them (Massiani and Ragazzi, 2008; Smith, 2012), whereas others rather use production functions (Costa 1996, Azevedo et al., 2012). Yet, there are authors that believe in a broader relationship between inputs and outputs, they also consider some aspects related to the quality of the provided service and the infrastructure available (Azambuja, 2002; Diana, 2010). Other studies assess efficiency taking it under a specific focus. A good example of it is the technical efficiency - a correlation between the infrastructure available and the use of it (Scotti et al., 2012).

Differences appear because evaluation systems hold different means. Some of them aim to maximize profit or minimize costs. There are those that look forward to encourage quality improvements while others are after regulatory procedures. So, in the end, performance measurement systems help meeting some predefined targets and are not supposed to be - in any circumstance - a goal itself. The methods used for evaluating and comparing companies' performances regarding production or service providing, specifically for transportation infrastructure, are described below.

Data Envelopment Analysis (DEA)

Data Envelopment Analysis (DEA) is a nonparametric method based on mathematical programming and it is capable of evaluating technical efficiency when using just "quantities" as input. It combines economic efficiency using prices. Based on such analysis, evaluation noise factors are wrongly seen as inefficiency (Azambuja, 2002). Furthermore, the method allows DEA analyses over different products that hold different inputs. It is a model that aggregates measurements, what can be considered a limitation (Costa, 1996).

The method basically consists in defining decision making units (DMU). Such units will be evaluated for effectiveness. Their inputs and products will be checked by applying the DEA models in order to set maximum or minimum efficiency costs. As a result of the methods' various iterations, we ended up drawing an efficient frontier, a line on which all DMU's are considered pareto-efficient. Therefore, the farther the line goes, lesser efficient the assessed unit will be (Golany and Roll, 1989; Oum et al. 1992; Costa, 1996; Azambuja, 2002).

Stochastic Frontier Analysis

Stochastic frontier analysis' models assume that there are inefficiencies inherent to the processes. They cannot be controlled by the company, so each DMU is a set of inputs, inefficiency and random errors. The analysis results show the "approach fee" of each DMU to the frontier where the efficiency is in its maximum (Aigner et al., 1977; Azambuja, 2002; Diana, 2010; Smith, 2012).

Just as for the method DEA, in order to use the stochastic frontier analysis it is necessary to define the DMU's and to estimate one or more production or cost functions or other cost or production function that group up measurements of interest. Some authors believe that this method is better than the DEA when comparing efficiency, once it allows splitting efficient frontier deviations into random errors and inefficiency is found under company's control, furthermore, such method enables evaluating elasticity costs (Massiani and Ragazzi, 2008; Smith et al, 2010; Scotti et al, 2012).

Other Methods

We can use many other methods to evaluate and compare production units or service providers' performances. In fact, they can be adapted before being applied. Virtually, all multicriteria decision methods can be used for comparing efficiency, for example: GREY analysis, Malmquist index and different simple methods to compare predefined sets of indicators (Almeida and Rebelatto, 2005; Graham, 2005).

USES OF METHODOLOGIES

By means of an extensive literature review, the present section aim to identify what methods have been used by researchers in order to evaluate and compare performances from service providers, mainly those from the transportation sector. An important part of the transportation infrastructure sector is on the hands of private investors who explore it and provide services. The goal is to further identify – by analyzing some of the latest concession contracts - what methods have been used by the regulators to measure and compare the performance of the provided services.

DEA

The DEA has been widely used to compare efficiency rates among service providers from the transportation sector, mainly in Brazil. Several authors have used it in order to compare efficiency to operate highways (Azevedo et al., 2012; Clímaco et al., 2010), passenger transportation services (Silveira, 2008; Azambuja, 2002) and several other services provided by ports, airports and railways (Acosta et al., 2011; Gillen and Lall, 1997). Ferrari and Basta (2009) have proposed the use of the DEA methodology to introduce market competition and price-cap regulation on ports concession contracts, in Italy.

Stochastic Frontier Analysis

The stochastic frontier analysis is also widely used in researches regarding the transportation sector. Although it is not much used by Brazilian authors, several studies outside Brazil use such method in order to compare efficiency among service providers. The methodology was used to analyze the efficiency of airports (Diana, 2010; Scotti et al, 2012), of railroad industries (Smith et al., 2010; Smith, 2012), of passengers transportation (Novaes and Medeiros, 2008) and of highway operations performed under concession (Massiani and Ragazzi, 2008).

Other methods

Many other direct assessment methods have been used. We could say that, at this point, they fit the vast majority of published works. There are empirical methods that consider a group of complex indicators and compare levels attained by various companies in order to conclude about the efficiency on the companies that follow such measurements.

The current paper lists many works regarding the transportation sector, mainly due to passenger transportation services (Pezerico, 2002; Jansson and Pydoke, 2010; Medeiros and Nodari, 2011). It is assumed that in regards to its proximity to the user, to daily use, to the continuous operation and especially to the way the sector has evolved throughout the time, each company and every published study usually address a different type of quality control when providing the service.

The aforementioned situation has given rise to a large number of quality and performance indicators that simply cannot be compared when the target lays on performing “benchmarking” in the businesses. Local and structural issues must be considered. Once so far there was no interest in comparing efficiency among transport companies or transportation systems, nobody searched for evaluation unified methods. So it’s necessary to be done by transportation managing departments.

The present section brings up some concession contracts regarding highway’s management. Despite the fact that they list a set of technical parameters that define the quality of paving or marking, they do not address methods for evaluating concessionaires’ efficiency. This is the case of the second batch of Brazilian federal concessions and some Chilean contracts such as the "RUTA 5". The concessions for highway management given in the 1990s, in Brazil, are not parameterized neither foresees ways to measure performances.

Table 1 summarizes works that have used each method. It is easy noticing that articles using stochastic analysis are more recent, probably due to the upgrades on the concessions’ database over the past few years.

Table 1: Methods used to evaluate efficiency

AUTHORS	YEAR	METHODS	SCOPE
Gillen e Lall	1997	DEA and Tobit Regression	Twenty one airports in USA–Evaluating individual and network efficiency
Azambuja	2002	DEA	Urban transportation – comparing efficiency among Brazilian cities
Silveira	2008	DEA	Interstate passengers transportation – comparing companies’ efficiency
Acosta et al.	2011	DEA	Analyzing and comparing production efficiency in Brazilian ports
Azevedo et al.	2012	DEA	Costs and technical efficiency in Brazilian highways’ concessions in the 1990’s
Clímaco et al.	2012	MOLP - DEA	Brazilian highways’ concessions in the 1990’s
Massiani e Ragazzi	2008	Stochastic	Italian highways’ concessions before and after privatization in comparison to French concessions
Novaes e Medeiros	2008	Stochastic and DEA	Interstate passengers’ transportation - technical efficiency among companies
Diana	2010	Stochastic	Airports in the New York area
Smith et al.	2010	Stochastic	Benchmarking the efficiency of European railways
Smith	2012	Stochastic	Comparison the efficiency in European railways and economic regulations
Scottiel al.	2012	Stochastic	Technical efficiency of Italian airports
ContractRuta5	1995	Indicators	“Ruta5” highway concession - Chile
Pezerico	2002	Indicators	Interstate passenger’s transportation
Contracts of the second round	2008	Indicators	Brazilian highways’ Concessions

Jansson e Pydoke	2010	Indicators	Urban transportation
Medeiros e Nodari	2011	Indicators	Passengers' transportation

FINAL REMARKS

The literature review exposed in the current paper highlights the importance of efficiency analysis to companies from all sectors. Such analysis requires a good performance indicator system, in order to be effective. It also demands the use of appropriate benchmarking tools. Due to recent proposals for a massive privatization of the logistics infrastructure services in Brazil, measuring and comparing the management and the use of infrastructure's efficiency becomes critical. Using such a tool makes it possible to provide greater equity in the use of infrastructures and increase competitiveness to the Brazilian industry, as well.

Regarding markets that face constant competition, measuring and comparing efficiency as well as taking actions to increase productivity are key factors in order to keep the company in the market. Regarding markets such as the concession for infrastructure, which is a naturally monopolistic one, it is demanding that the regulatory agency ensures quality throughout services' providing and that it promotes companies' efficiency increase, generating equity to the use and billing of the service.

Thus, artificially inserting competition by using benchmark efficiency among different concessions, whether national or not, becomes a proper option. Developing efficiency factors to management, operation and use of infrastructures - in order to influence concessions' profit - encourages the search for high quality performances in the companies.

Therefore, identifying the best techniques to measure and compare performances in the companies becomes critical. The current study aimed to identify what are the proper tools to do so, and how they have been used by researchers and regulators. Steps ahead must be taken in order to detail the main methods, highlighting their advantages and disadvantages, as well as pointing out the proper methods for each situation and how to apply them in real operations.

REFERENCES

- Acosta, C. M. M., Silva, A. M. V. A. & Lima, M. L. P. (2011) Aplicação de análise envoltória de dados (DEA) para medir eficiência em portos brasileiros. *Revista de Literatura dos Transportes*, 5, 88-102.
- Aigner, D., Lovell, C. A. K. e Schmidt, P. (1977) Formulation and Estimation of Stochastic Frontier Production Function Models. *Journal of Econometrics*, 6, 21-37.
- Almeida, M. e Rebelatto, D. (2005) Sistematização das técnicas para avaliar a eficiência: variáveis que influenciam a tomada de decisão estratégica. *II SEGeT - Simpósio de Excelência em Gestão e Tecnologia*. Rezende - RJ.
- Azambuja, A. M. V. (2002) *Análise de eficiência na gestão do transporte urbano por ônibus em municípios brasileiros*. Tese (Doutorado em Engenharia de Produção) Programa de Pós-Graduação em Engenharia de Produção – Universidade Federal de Santa Catarina.
- Azevedo, G. H. I., Roboredo, M. C., Aizemberg, L. , Silveira, J. Q. e Mello, J. C. C. B. S. Uso de análise envoltória de dados para mensurar eficiência temporal de rodovias federais concessionadas. *Journal of Transport Literature*, 6, 37 - 56.
- Behn, R. (2003) Why measure performance? Different Purposes Require Different Measures. *Public Administration Review*. 5, 63, set-out.
- Bogetoft, P. and Otto, L. (2011) *Benchmarking with DEA, SFA and R*. New York, Springer publishing house.

- Bonelli, R. e Fonseca, R. (1998) *Ganhos de produtividade e eficiência: novos resultados para a economia brasileira*. Texto para discussão N°557, IPEA, Brasília – DF.
- Clímaco, J. C. N., Mello, J. C. C. B. S. e Meza, L. A. (2010) A Study of Highways Performance with a Molp-Dea Model and an Interactive Tri-Criteria Linear Programming Package (Trimap). *Brazilian Journal of Operations & Production Management*, 7, 163-179.
- Costa, M. B. B. (1996) *Analisando a produtividade de uma operadora de transporte coletivo urbano por ônibus*. Dissertação (Mestrado em Engenharia de Produção) Programa de Pós-Graduação em Engenharia de Produção – Universidade Federal do Rio Grande do Sul.
- Diana, T. (2010) Can we explain airport performance? A case study of selected New York airports using a stochastic frontier model. *Journal of Air Transport Management*, 16, 310 - 314.
- Ferrai, C. and Basta, M. (2009) Port Concession fees based on the price-cap regulation: A DEA approach. *Maritime Economics & Logistics*, 11, 1, 121-135.
- Gillen, D. e Lall, A. (1997) Developing measures of airport productivity and performance: an application of data envelopment analysis. *Transport Research - Part E*, 33, 261 - 273.
- Graham, A. (2005) Airport benchmarking: a review of the current situation. *Benchmarking: An International Journal*, 12, 99-111.
- Golany, B. e Roll, Y. (1989) An Application Procedure for DEA. *Omega*, 17, 237-250.
- Hensher, D. A. e Stanley, J. (2010) Contracting regimes for bus services: What have we learnt after 20 years? *Research in transportation economics*, 29, 140-144.
- Jansson, K. e Pyddoke, R. (2010) Quality incentives and quality outcomes in procured public transport – Case study Stockholm. *Research in Transportation Economics*, 29.
- Juran, J. M. (1997) Qualidade no século XXI. *HSM Management*, 3, jul-ago.
- Macário, R. (2010) Future challenges for transport infrastructure pricing in PPP arrangements. *Research in transportation economics*, 30, 145-154.
- Macedo, M. M. (2012) Gestão da produtividade nas empresas. *Revista Organização Sistêmica*, 1, jan - jun.
- Massiani, J. e Ragazzi, G. (2008) Costs and efficiency of highway concessionaires: a survey of Italian operators. *European Transport*, 38, 85-106.
- Medeiros, F. S. e Nodari, C. T. (2011) Sistema de Indicadores da Qualidade para o Transporte Rodoviário de Passageiros. *XXV ANPET – Congresso de Pesquisa e Ensino em Transportes*. Belo Horizonte – MG.
- Müller, Claudio José. (2003) *Modelo de gestão integrando planejamento estratégico, sistemas de avaliação de desempenho e gerenciamento de processos*. Tese (Doutorado em Engenharia de Produção) Programa de Pós-Graduação em Engenharia de Produção – Universidade Federal do Rio Grande do Sul.
- Novaes, A. G. e Medeiros, H. C. (2008) Análise da produtividade de sistemas de transportes com métodos paramétricos e não paramétricos. *XXII ANPET – Congresso de pesquisa e ensino em transportes*. Fortaleza – CE.
- Oum, T. H., Tretheway, M. W. e Waters, W. G. (1992) Concepts, Methods and Purposes of Productivity Measurement in Transportation. *Transportation Research Part A*, 26A, 493-505.

Scotti, D., Malighetti, P., Martini, G., e Volta, N. (2012) The impact of airport competition on technical efficiency: A stochastic frontier analysis applied to Italian airport. *Journal of Air Transport Management*, 22, 9-15.

Senna, L. A. S. e Michel, F. D. (2006) *Rodovias auto-sustentadas: O desafio do século XXI*. São Paulo, CLApublishinghouse.

Silva, A. M.; Kubota, L. C.; Gottschalk, M. V. e Moreira, S. V. (2006) *Economia de Serviços: Uma revisão de literatura*. Texto para discussão N°1173, IPEA, Brasília – DF.

Silveira, S. F. (2008) *Desempenho e Benchmarking de Empresas de Transporte Rodoviário Interestadual de Passageiros*. Dissertação (Mestrado em Engenharia Civil) Programa de Pós Graduação em Engenharia Civil - Universidade Federal de Santa Catarina.

Smith, A., Wheat, P. e Smith, G. (2010) The role of international benchmarking in developing rail infrastructure efficiency estimates. *Utilities Policy*, 18, 86-93.

Smith, A. S. J. (2012) The application of stochastic frontier panel models in economic regulation: Experience from the European rail sector. *Transportation Research Part E*, 48, 503 - 515.

Stanley, J. e Longva, F. (2010) Workshop report - A successful contractual setting. *Research in transportation economics*, 29, 80-88.

Waters, W. G. (2002) Productivity Measurement. *Handbook of Transport Modelling*. Cap. XX, v. 1, Oxford, Editora Pergamon Press.

PLANNING OF INNOVATION: A SOCIO- ECOLOGICAL VIEW

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ABSTRACT

Advocating the socio-ecological stance as a basis for planning for innovation, this paper extends to the inter-organisational level the concept of Innovatory Planning, a methodology that propitiates identifying and implementing technical and social changes required for an organization to absorb new technological processes and to meet the complex demands of turbulent environment. The analytical framework proposed combines the socio-technical approach, with the focus expanded to the inter-organisational level, from a socio-ecological viewpoint, and the adaptive planning perspective, that emphasizes the normative level and preconizes the adoption of an action learning posture which highlights participation, coordination, integration, sustainability and flexibility.

INTRODUCTION

This article, developed from a theoretical standpoint, aims at justifying the necessity of introducing in planning for innovation the socio-ecological perspective, giving primacy to multiple institutional arrangements as a basic element for survival and expansion in a globalized environment, characterized by high degrees of uncertainty, complexity and interdependency. In accordance with this view, the extension of the concept of Innovatory Planning (Melo, 1991; 2003) to the inter-organisational level is also preconized.

To construct the basis for this proposal, initially the elements of the socio-ecological perspective are characterized, and the origins and fundamentals of this concept are described. Then, the methodology of Innovatory Planning is presented, stressing its basis on socio-technical concepts and in the adaptive planning methodologies. An analytical framework is developed, combining the socio-technical approach, with the focus expanded to the inter-organisational level, in conformity with a socio-ecological vision, and the adaptive planning viewpoint. The article concludes showing in which ways the extension of Innovatory Planning to the socio-ecological level might contribute to improve the quality of the process of planning of innovation, considering the interdependency of the multiple actors involved in this process.

THE SOCIO-ECOLOGICAL PERSPECTIVE

In order to shown how the socio-ecological perspective can contribute for the innovation planning process, a theoretical basis, integrating the concepts of inter-organisational focus and socio-ecology, developed by the author elsewhere (Melo, 2012; Dias & Melo, 2012), is synthetized here. Upon this basis, it is showed how the adoption of the socio-ecological regulation mode becomes imperative, in face of the degrees of uncertainty, complexity and interdependency, characteristic of the phenomenon of innovation

As a broad area of inquiry, the idea of socio-ecology encompasses the relationships of the various actors in the environment. Here, it is applied in relation to the concept of organisational-ecology, as introduced by Trist (1976), based on the idea of inter-organisational domain, defined as the system to which one organisation belongs (Evan, 1966; Warren, 1967). In this way, instead of constituting the focus of analysis, with the environment characterized in terms of its purposes and functions, the organization is referred to the environment (Trist, 1976):

“By the term organisational ecology, however, I wish to refer not to a focal organisation and its organisation-set, but to the organisational field created by a number of organisations whose interrelations compose a system at the level of the field as a whole. It is the character of this overall field, as a system, which now becomes the object of inquiry, not the single organisation as related to its organisation-set.” (p.1)

More than three decades ago, Trist (1976, p.18) perceived the environment as “exceedingly complex and more interdependent - with the consequence that organisations must face the future under conditions of a higher level of uncertainty than that to which they have hitherto been accustomed.” He advocated that, due to the increasing saliency of turbulent conditions, a new organisational principle, alternative to the principle of bureaucracy, lying in the characteristics of systems of organisational ecology, was becoming mandatory. In face of this, he defended the relevance of organisational ecology in relation to institution-building, thus asserting:

“In order to control the turbulence generated in such a world, it is my submission that organisations in the middle level of society, between the macro and the micro, require strengthening. Further, that the function of organisations at this middle level is regulation, not production. And finally, that it is critical for our wellbeing that they be fashioned on ecological and democratic rather than on bureaucratic and totalitarian lines.” (p.18).

The socio-ecological regulation is based on the interdependency of organizations, submitted to the socio-technical principle of minimal critical specification (Herbst, 1974), i.e., a system of a higher level should determine, to its subsystems, only the essential elements required by the functioning of the whole system, leaving the specifications of the internal variables to each subsystem. It is worth noting that this principle is akin to the principle of subsidiarity, as proposed by the social doctrine of the Catholic Church. This type of regulation does not entail control, but rather articulation and dissemination of information.

Therefore, with the dimension of regulation, the socio-ecological perspective emerges, based on the interdependency of organisations, dynamic negotiation of roles and objectives and collaborative strategies (Melo, 2002). The most effective regulative processes for the inter-organisational domain are those which are designed to improve the degree of adaptability of the member organisations (Trist, 1981), thus opposing the bureaucratic regulation, characterized by external controls, hierarchy and centralization.

INNOVATORY PLANNING

This section summarizes the ideas concerning Innovatory Planning developed by the author in a research program during the last two decades, most of them already presented and discussed in different occasions (Melo, 1991, 1992, 2003, 2004, 2012). This methodology was conceived to define strategies, processes, methods, attitudes and postures appropriate for an organization facing technological innovation and its dual, social innovation (Melo, 1991). It embraces an action learning methodology that facilitates the identification and implementation of technical and social changes to help an organization to absorb the impact of new technological processes and to meet the complex demands of turbulent environments. It configures a special instance, developed to deal specifically with innovation, of Articulated Incrementalism, an adaptive planning methodology proposed by this author (Melo, 1977). As such, it was developed based on socio-technical principles and on the adaptive planning fundamentals.

A set of instruments and techniques for the implementation of this methodology, including the Idealized Project, Search Conferences, Theory of Real Options, the AIDA technique and Action Research, were presented at the 5th GBATA Conference (Melo, 2003), where the combined adoption of these methods and

instruments was preconized as an appropriate way to institutionalize a successful process of Innovatory Planning.

Socio-technical Approach

The socio-technical approach, assuming that the organization is an open system, composed of technical and social subsystems that must be jointly optimized, (Emery; Trist, 1960) allows the formulation of management strategies appropriate for an integrated development of the organization, improving its performance. It is argued that a management system based on socio-technical principles provides a more effective interrelationship of the various business units, leading to the harmonic convergence of the organization's goals.

When introduced, in the middle of last century, the socio-technical approach adopted as levels of analysis the work unit, the organization as a whole or the macro-system. Trist (1981) expanded these analytical levels to cover the organisational ecosystem formed by organizations sharing a common action space, thus shifting the focus of analysis to a network of organizations, which, in principle, would more effectively assimilate technological and social innovations. As showed above, this new focus characterizes the socio-ecological perspective.

Adaptive Planning Methodologies

The adaptive planning approach perceives planning as a continuous learning process, which requires the participation and effective involvement of members of the organization, demanding coordination of actions and integration of different organisational levels, from a holistic view. It is characterized by the continuous appraisal of the actions implemented, leading to the constant redefinition of objectives and goals. The process of adaptive planning, to be effective, also requires a change of focus to the inter-organisational level, redefining of the role of planner as a networker, i.e., builder of networks of planning (Burns et al., 1983).

Adaptive planning starts at the normative level (Trist, 1976), requiring the participation of those affected in the discussion of the values involved and in the appreciation of the consequences of the actions taken. It constitutes a continuous learning process, characterized by flexibility and active adaptation. This type of adaptation demands an internal diversity appropriate to match the variety and complexity of the environment (Ashby, 1956) to deal with the challenges posed by it. Thus, the system has to present a repertoire of responses that is compatible with this complexity (Melo, 1977).

An adaptive planning process aims at the radical transformation of the system, intending to make it more and more compatible with its organisational domain. This kind of planning relies upon a socio-technical basis, and treats the social and the technical subsystems as mutually complementary, aiming at their joint optimization (Emery; Trist, 1960), thus rejecting any form of technological determinism (Melo, 2003).

To guarantee survival within a turbulent environment (Emery; Trist, 1965), it is necessary to consolidate innovative networks, linking organisations with shared responsibilities regarding the same action space (Friend; Jessop, 1969, Friend; Power; Yewlett, 1974). The consolidation of these networks can only be reached through efficient communication channels and well-designed articulative mechanisms (Melo, 1988, 1991, Melo; Melo, 1985) in order to propitiate the formulation and implementation of socio-technological strategies that meet the demands of those environments. For this, it is crucial to start the planning process at the normative level, addressing questions of values for all involved, which is a basic characteristic of the sociotechnical approach expanded to the socio-ecological perspective.

The effective involvement of the multiple actors that play an active role in the innovation phenomenon is also crucial to assure the continuity of the process, promoting the identification and the implementation of ways to deal with the factors that might affect the sustainability of the innovations designed.

The Innovation Process

Innovation is a complex phenomenon, which involves different actors which can have conflicting objectives, many times derived from irreconcilable *weltanschauungen*. Comprising a combination of phases and elements with diverse degrees of complexity, this phenomenon entails a very sophisticated process of planning, that contemplates the visions, behaviors and resources of all the instances involved. Consequently, this process can be conceived only as a learning one, displaying the flexibility required by the changing aspects of the environmental dynamics.

The innovation process, to be effective, demands a new focus, considering the inter-organisational dominion, for no single organization can deal alone with the complexity of interrelationships and uncertainty that characterizes the intricate 'meta-problem' (Chevalier, 1969) of innovation. The basic assumption is that technological innovations require social innovations and the best performance of the organization results from the adequate interaction of these factors.

An increase in the degree of organisational competitiveness, to be compatible with the three pillars of sustainability characterized in the triple bottom line proposal (Elkington, 1998), demands innovations, both technological and social. To evaluate whether the strategies of innovation are contributing to improve business performance, it is necessary to characterize the innovation required, in business management, by the constant changes in the macro environment and its impact on the innovation planning process, at the strategic level.

In this process, it is important to promote only carefully chosen innovation, privileging those advances which comply with social, economic and environmental sustainability requirements. This selection should inhibit the tendency to give primacy to innovation over all other values, as a consequence of 'Innovate or Perish' (Melo, 2004), a deceptive lemma for organizations, derived from the innovation imperative.

CONCLUSION

Innovatory Planning was presented as a basis for socio-ecological innovation which considers the diverse relationships of the inter-organisational domain. It adopts an action learning posture, facilitating the identification of innovative niches which make possible the formation and consolidation of networks of innovative action, in that domain. It is rooted in the socio-technical assumption that any organisation, being an open system, should manage both an internal and an external environment, playing an active role by seeking, environmental configurations that are more favourable to its action.

To make effective the planning process, the innovatory planning methodology was here seen as a useful instrument, within a context where socio-ecological regulation can strengthen the interrelationship between the main actors of the present organisational dominion in which innovation is a requisite.

Innovatory Planning entails a learning posture that can facilitate the identification of innovative niches which make possible the formation and consolidation of networks of innovative action, at the inter-organisational domain. The consolidation of innovative networks, with efficient communication channels and appropriate articulative mechanisms, was pointed as an essential element for survival within a dynamic environment. These innovation networks were identified as essential for the establishment of the process of planning of innovation.

The innovation process appropriate to integrate the diverse functions required by the contemporary social and economic environment, known as the knowledge society, requires the socio-ecological mode of regulation. In this perspective, institutions, organisations and groups involved in the *problematique* of innovation can act collaboratively and progress to find better adaptive ways of survival and development. There is a demand for associative and collaborative strategies, which may result in the formation of valuable networks, in relation to complex functions such as research and development.

This framework is expected to be encouraging for the formulation of strategies for collaborative activities and associations, bringing together industry and research institutions to develop programs favorable to the appropriate addressing of these issues. As a result, emphasis might be given to the endogenous contribution

of science developed within each country, compatible with the new paradigm of innovation and with the real needs of each society.

Innovatory Planning, conceived as a potent mechanism to reinforce active adaptation and learning, constitutes a change oriented methodology with a high degree of flexibility, here extended to be applied from a socio-ecological perspective, as a basis for enhancing the process of planning for innovation.

REFERENCES

Ashby, W. (1956), "Self-regulation and requisite-variety", in: Emery, F. (1969), *Systems Thinking*, Penguin Books, Suffolk, 105-124.

Burns, T., Cohen, B. J., Hawk, D. L., Keidel, R. W., Melo, M.A.C., Pava, C. & Weiner, J. (1983). *Where Planning Fails - a perspective of adaptive incremental learning in complex organizational settings*. Preliminary Manuscript Draft. Wharton School, University of Pennsylvania, Filadélfia.

Chevalier, M. (1969). *Interest Based Planning*. Doctoral Dissertation, Wharton School, Philadelphia. University of Pennsylvania.

Dias, A.B., & Melo, M.A.C., (2012). *ST&I as an Adaptive Agent for Coping with Global Warming in Equatorial Regions*. Proceedings. 10 ALTEC Conference. Bandung.

Elkington, J. (1998). *Cannibals with forks: the triple bottom line of 21st Century Business*. Oxford: Capstone Publishing Limited.

Emery, F. & Trist, E. L. (1960). *Socio-technical Systems*. in: *Management Sciences, Models and Techniques*. C. W. Churchman & M. Verhulst (eds) 2, 83-97. Pergamon, Oxford.

Emery, F. & Trist, E.L. (1965). The causal texture of organizational environments. *Human Relations*, **1**, 21-32.

Evan, W. (1966). *The Organization-Set*. In *Approaches to Organizational Design*. in: Thompson, J. (ed) University of Pittsburg Press. Pittsburg.

Friend, J.K. & Jessop, W. N. (1969). *Local Government and Strategic Choice*. Pergamon Press, Oxford.

Friend, J.K., Power, J. M. & Yewlett, C. J. L. (1974). *Public Planning: the inter-corporate dimension*. Tavistock Publications Ltd. Londres.

Herbst, P.G. (1974) *Socio-technical Design: Strategies in Multidisciplinary Research*. London: Tavistock Publications,

Melo, M.A.C., (1977). *Articulated incrementalism - a strategy for planning (with special reference to the design of an information system as an articulative task)* Doctoral Dissertation. Wharton School, University of Pennsylvania. Filadélfia.

Melo, M.A.C. (1988). *An Action Learning Strategy for Interorganizational Planning in Science and Technology*. *Anais do "2e Congrès International in France: Le Génie Industriel: Facteur de Competitivité des Enterprises"*. vol. 1 (2): 683-690. Groupement de Génie Industriel. Nancy.

Melo, M.A.C., (1991). *Innovatory Planning: Anticipating Social and Technological Innovation*. Resumo. *Anais do "3e Congrès International in France: Le Génie Industriel: facteur de Competitivité des entreprises"*. *Groupement de Génie Industriel-GGI*. Tours.

Melo, M.A.C. (1992). *Innovatory Planning: A Basis for Socio-Ecological Innovation*. EURO XII/TIMS XXXI. Helsinque.

Melo, M. A. C. (2002) Inovação e Modernização Tecnológica e Organizacional nas MPMEs: o domínio interorganizacional. In: Proceedings of the Seminário Internacional: Políticas Para o Sistema de Arranjos Produtivos Locais de MPME,; 1: 01-22.

Melo, M.A.C., (2003) Innovatory Planning: Methods and Instruments. *In* Proceedings of 5th.GBATA Conference. Budapest.

Melo, M.A.C., (2004) Planning of Innovation: The Inter-Organisational Dominion. In Proceedings of the 3rd International Conference On Systems Thinking In Management (ICSTM 2004) - Transforming Organizations To Achieve Sustainable Success, Philadelphia: ICSTM.

Melo, M. A .C. & Melo, L.C.P. (1985) Os Agentes Reticuladores e o Processo de Planejamento: um estudo de caso, Anais do X Simpósio Nacional de Pesquisa de Administração em C&T. FEA/USP. São Paulo

Melo, M A C. (2009). Competitive innovation in peripheral areas: a possible dream? *In* Proceedings of the VII Triple Helix International Conference, 2010, Glasgow.

Trist, E. L. (1976). A Concept of Organisational Ecology - an invited address to the three Melbourne Universities. Melbourne.

Trist, E. L. (1981). The Evolution of Socio-Technical Systems. Occasional Paper nº 02, Ontario Quality of Working Life Centre. Ontario

Warren, R. L. (1967). The Interorganizational Field as a Focus for Investigation. *Administrative Science Quaterly*, 12.

CHARACTERIZING VOLUNTEERS IN SPORTING MEGA EVENTS: THE CASE OF THE FIFA SOCCER WORLD CUP IN SOUTH AFRICA

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ABSTRACT

Mega sporting events need a number of activities to be properly coordinated if they are to be successful. These events require large numbers of human resources and invariably reliance is heavily on volunteers. Essentially, volunteers form the backbone in accomplishing the mega event logistics. Despite the foregoing, little research has characterized volunteers in sporting mega events from a South African perspective. This study addressed this issue by establishing university students' important motivational factors in terms of gender and gender with respect to age. To collect data, the 40-item Motivational Factors in Sport Volunteering Scale was used. In all 425 participants with ages ranging between 18 years and 25 years, responded fully to the administered instrument. Results indicated that similar numbers of females and males reflected the same motives for volunteering. This finding was replicated in terms of gender and age. A significant contribution of this study was the fact that it provides event managers with a better understanding with regards to who to attract, place and retain for mega sporting event volunteers.

INTRODUCTION

Sporting mega events take place over a short time span but are planned for long term political, social and physical consequences (Roche, 2000). In general, these events have mass appeal and attract a lot of visitors to the host country; and they have international significance (Getz, 1997). Typical sporting mega events include the Olympics, the Soccer World Cup, Cricket World Cups and the Rugby World Cup. The main feature of sporting mega events is that they are about unity of time, place and activity (Giannoulakis, Wang & Gray, 2008). Mega sporting events need a number of activities to be properly coordinated if they are to be successful. The coordination involves issues such as the promotion of the event; the coordination of activities; the management of multiple functions related to marketing, hospitality, the media, logistics and security. Significantly, these events require large numbers of human resources. For all intents and purposes the events rely heavily on volunteers. This means, by and large volunteers form the backbone of all operations in mega events. The reliance on volunteers is mainly because of the need for large numbers of people to assist in, and delivering various services associated with an event (Bang & Ross, 2009). Volunteers though do not replace the professional sport administrators and they are not meant to substitute them either. In many ways they need to be guided by sport administrators in delivering different services needed at sporting events. Volunteers therefore contribute towards building social capital, thereby making the community a better place for all (Connolly, 2002).

In essence, volunteers make up the majority of the human resources used in a sporting mega event. The conditions under which volunteers function in sporting mega events, contrast markedly with those of volunteers in other settings (Cuskelly, Auld, Harrington, & Coleman, 2004). This, in the view of Cuskelly et al. (2004) is because of the routinized elements such as limited number of days, inflexible deadlines and the fact that volunteers are required to complete a high number of hours over a short period of time. Volunteers are a critical resource because they provide event organizers with human resource capability that offers, sustains and expands the quantity and quality of the various services that an event has to offer (Strigas, 2003). Also, volunteers afford an organization the ability to provide services economically and therefore help in utilizing a limited budget effectively and efficiently (Cnaan & Goldberg-Glen, 1991). This is because they help offset the event costs and ease the budget on full time staff expenditure (Wong & Kwok, 2010; Cemalcilar, 2009). Giannoulakis et al.

(2008) posit that volunteers are undoubtedly one of the most essential resources involved in mega event logistics. Essentially, without their personal investment most sporting mega events would simply not be possible to hold (Auld & Cuskelly, 2001).

Problem Statement

Volunteering has benefits for both a hosting organization as well as for the individuals who volunteer. Volunteers are attracted by certain factors that are specific to the mega event. These factors may include a sense of national pride, uniqueness of the experience and the chance to contribute to the success of the event. Taking into account the importance of any sporting mega event to a country and the vital role that volunteers perform in such an event it is a challenge to recruit, train and retain the 'right' volunteers (Slaughter & Home, 2004). This is because of the huge cost of recruiting and training volunteers (Hollway, 2002). It is of paramount importance therefore to identify who volunteers. That is, who are the individuals who are willing to share their time, effort and resources to contribute to the success of an event? Literature shows that the phenomenon of volunteering and volunteerism has emerged as a field of study in the last decade (c.f. Chalip, 2000; Moragas, de Moreno, & Paniagua, 2000; Kemp, 2002; Green, & Chalip, 2004; Surujlal, & Dhurup, 2008). In fact, it is argued that "... little research has addressed the specific characteristics and experiences of individuals who choose to dedicate their volunteering time and effort ..." (Giannoulakis et al., 2008, p. 197).

South Africa is what can be called a 'sport mad' nation. This may be deduced from the fact that this country has hosted a number of mega sporting events between 1994 the year Nelson Mandela became president to date. Examples of these events include the Rugby World Cup in 1995; the Africa Nations' Cup in 1996; the Cricket World Cup in 2003; FIFA Soccer World Cup in 2010, Champions League T20 in 2012; and the Africa Nations' Cup in 2013. Of all the events, none has been as big as the 2010 FIFA Soccer World Cup. Hosting this sporting mega event was awarded to South Africa in May 2004. Importantly, this award meant that this country was the only one ever in Africa to be given this opportunity in FIFA's 101 year history (Fink, 2008). What is undeniable though is the fact that FIFA is a completely male-dominated organisation. For instance, of the FIFA executive committee, it is pointed out that the "... sad thing about the composition of this executive is that all the twenty - four members are males" (Machingambi & Wadesango, 2011, p. 152). In fact sporting bodies such as FIFA are said to be "... literally structured by codified rules of segregation, reminiscent of the same rules that once formally segregated blacks from whites (Anderson, 2009, p. 11). In this regard, Anderson (2005, p. 5) echoes that sport organizations "... so highly value orthodox masculinity that I have previously called sport 'a cult of masculinity'.

As has been indicated earlier, for sporting mega events to be successfully run, a number of volunteers are needed. It is important then that those who host these events should have a sense of who the volunteers are and what drives them into volunteering. On the basis of this, an attempt is made to characterize volunteers who participated in the FIFA soccer world cup hosted by South Africa in 2010. In particular, the aim was to establish which motivational factors were important to students both in terms of (i) gender and (ii) gender with respect to age. It was felt that this would provide sporting authorities with valuable information of who to target as volunteers when hosting events. So the research covered in this study should, as Baum and Lockstone (2007, p. 37) point out, be "... of value to mega sporting event organisers in maximising the value they can derive from effective use of volunteers." Also, as Hamidreza and Azadeh, (2012, p. S73) argue university students "... have a large impact on the general ideas at the communities; therefore, promotion of sport volunteering activities at the universities could develop the culture of volunteering in various parts of the communities." This research study is important from a South African perspective therefore because of the dearth of studies addressing this matter.

METHOD

Sample and Procedure

The population for the study was students from two universities in the Eastern Cape. Of the approximately 10 000 students, 1 000 were targeted through a convenience sampling method to participate in the study. Data collection took place in August 2011. Ten trained fieldworkers were employed to administer the questionnaire

on the university premises. Specific instructions were given to the fieldworkers to ensure that there was a balance between the genders in terms of participation in the study. It was also impressed on the fieldworkers that they should indicate to participants that all ethical considerations would be applied in the study. In this regard the field workers explained the nature of the study to students and requested their consent to participate. Participants were informed that they could withdraw from the study at any stage without any repercussion that their anonymity would not be compromised. Participants were requested to respond truthfully so that their answers would indicate what motivated them to volunteer in the 2010 FIFA World Cup. In most instances participants were requested to complete the survey in the presence of the fieldworkers. Four hundred and forty three questionnaires (response rate = 44.3%) were received.

Instrument

A questionnaire comprising two sections was used. Section A of the questionnaire requested the students to provide their biographical data. Four questions relating to gender, age, home language, the degree of study were included. Section B comprised 40 items of the Motivational Factors in Sport Volunteering Scale developed by Strigas and Jackson (2003) which sought the motives of volunteers. A seven point Likert type scale anchored by 1 = Not Important at all and 7 = Extremely Important (4 being neutral) was used to capture the responses of the participants. The scale comprised the *Material* factor (12 items) which related to incentives that allow sport volunteers to carry out a rational calculus of expected utility gain; the *Purposive* factor (8 items) which related to the desire of the volunteers to benefit with their actions the stated ends of the sport organization, and contribute to the sport event and community; the *Leisure* factor (8 items) which related to the individual's need for various leisure choices; the *Egoistic* factor (6 items) which related to volunteer's need to look after and / or take care of her/his own interest; and the *External* factor (6 items) which related to the extent to which volunteers are engaged to volunteering activities influenced by motives related to factors outside of the immediate control, like family traditions and significant others. A Cronbach alpha (α) reliability of 0.93 for the instrument was reported. Validity of the scale was ascertained by conducting a principal components analysis where five factors were extracted which accounted for 56% of the variance (Strigas & Jackson, 2003). Individually, the factors accounted for 29.2% (*Material*), 11.9% (*Purposive*), 5.7% (*Leisure*), 4.7% (*Egoistic*), and 4.5% (*External*) (Strigas & Jackson, 2003).

Data Analysis

Data were analyzed through the Statistical Package for Social Sciences (SPSS –version 20). To assess the demographic profile of the participants, frequencies and percentages were determined. To assess the reliability of the scores from the questionnaire, Cronbach's (1951) alpha was computed as a measure of internal consistency.

RESULTS

Biographical Data

Of the 1000 questionnaires administered 443 questionnaires were received. Of these questionnaires four hundred and twenty five (n = 425) were completed fully and therefore declared usable. The biographical data is presented in Table 1. Participants' ages ranged between 18 years and 25 years ($M = 20.57$; $SD = 1.84$). The table also shows that the students were in different study programs and spoke a variety of South African languages.

Table 1: Participants' biographical information (n = 424)

Category	n	%
Gender		
Female	157	36.8
Male	268	63.2
Age		
18 - 20	218	51.3
21 - 23	177	41.6
24 +	30	7.1
Language		

Afrikaans	34	8.0
English	36	8.5
Portuguese	2	0.5
Sesotho	35	8.2
Sipedi	43	10.1
Xhosa	66	15.5
Zulu	209	49.2
Area of study		
Commerce	62	14.6
Engineering	69	16.2
Education	64	15.1
Law	67	15.8
Psychology	63	14.8
Sociology	35	8.2
Natural science	65	15.3

Reliability and Validity of Students' Scores

Reliability of the scale was ascertained using Cronbach's alpha for internal consistency. The Cronbach alpha coefficient for the scale was 0.81 which is regarded as good (George & Mallery, 2003, p. 231). Validity was accepted *a priori* in this study. This is because the development of and determination of the factor structure of the scale was adequately described by Strigas and Jackson (2003). Furthermore, it is pointed out by Giannoulakis et al. (2008, p. 195) that:

- (a) the five factors included in the instrument (material, purposive, egoistic, external, and leisure) were adequately representing most of the volunteer dimensions identified in the review of literature; and
- (b) the instrument was capable of measuring the motivational patterns of sport volunteers in a valid and reliable way.

Importance with Respect to Gender

Here we wanted to determine the importance of volunteers' motives in participating in the 2010 FIFA world cup. As a recap, definitions of the different motives are illustrated in Table 1. Initially we focused on the *Material* subscale of the Motivational Factors in Sport Volunteering Scale. An example of an item from the *Material* subscale was: "I wanted to gain some practical experience toward paid employment." Figure 1a and Figure 1b show that about 49.7% of the females felt that this was not important to them. Similarly for about 49.4% of the males gaining practical experience toward paid employment was not the main issue. It is noticeable that for 35.0% (females) and 36.4% (males) volunteering was for *Material* purposes. That is, for these students the motive was related to incentives that they would gain for volunteering.

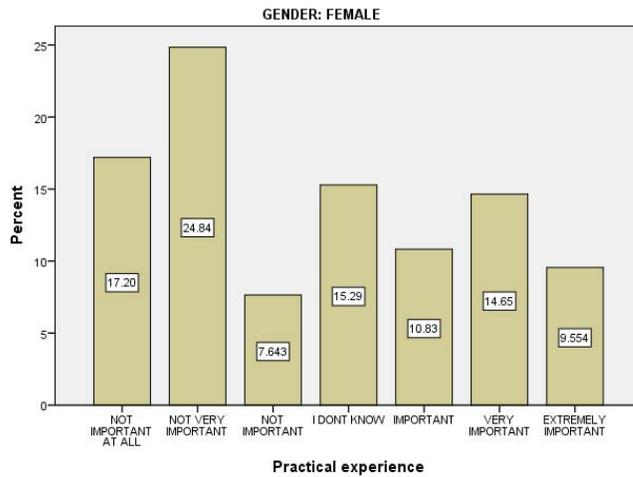


Figure 1a: Percentage distribution of females with respect to how important practical experience was to their volunteering in the 2010 FIFA world cup

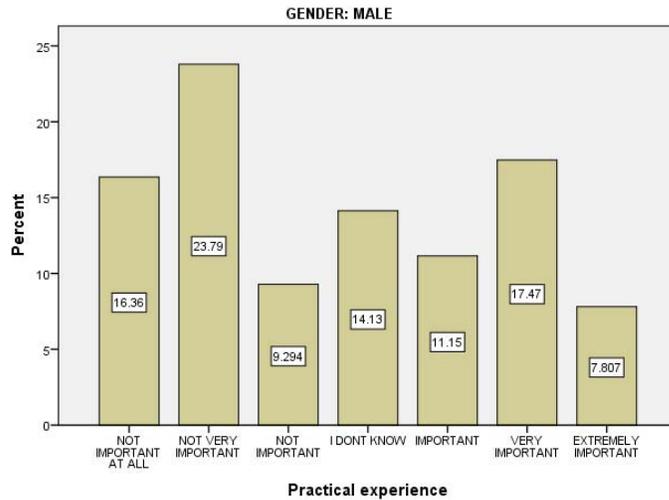


Figure 1b: Percentage distribution of males with respect to how important practical experience was to their volunteering in the 2010 FIFA world cup

In terms of the *Purposive* subscale, an example of an item was: “Volunteering in the 2010 World cup would be worthy of my efforts and attention.” It may be observed from Figure 2a and Figure 2b that to about 66.9% of the females this was not important. Similarly to about 59.9% of the males volunteering would not be worthy of their efforts and attention. The figures reveal however, that for 15.9% (females) and 19.0% (males) volunteering was for *Purposive* reasons. That is, these volunteers did this in order to benefit with their actions, the stated ends of the FIFA 2010 organizing committee, and contribute to the sport event and community.

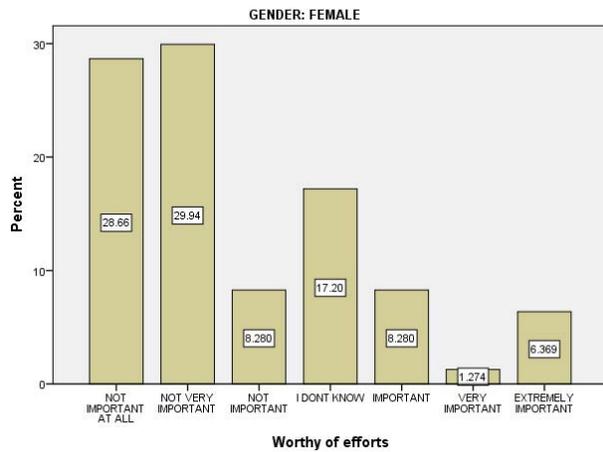


Figure 2a: Percentage distribution of females with respect to how important volunteering in the 2010 FIFA world cup would be worthy of their efforts and attention

With regards to the *Leisure* subscale, here an example of an item was: “I wanted to relieve the stress and the tension of everyday life.” Figure 2a and Figure 2b show that in terms of this subscale 14.0% (females) and 13.4% (males) indicated that *Leisure* reasons were of importance to them. This means that for these volunteers their motives for participation were related to individual’s need for various leisure choices. On the other hand, for about 71.3% of the females and about 69.1% of the males indicated that *Leisure* reasons were of no importance to them. This suggests that this group of students would not use volunteering to relieve the stress and the tension of everyday life, for instance.

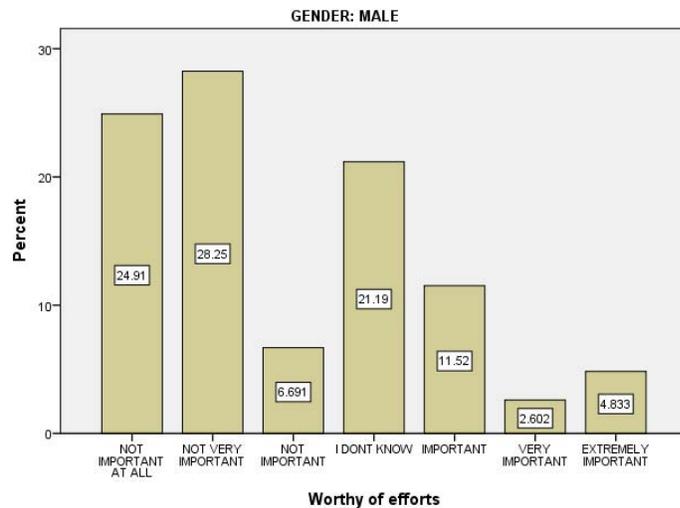


Figure 2b: Percentage distribution of males with respect to how important volunteering in the 2010 FIFA world cup would be worthy of their efforts and attention

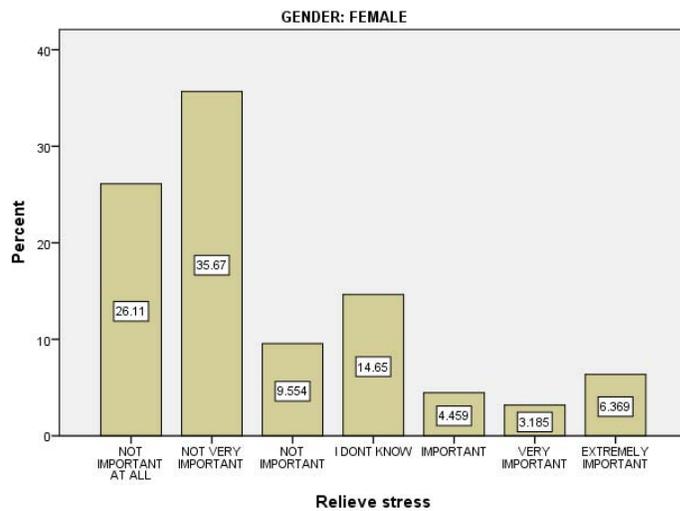


Figure 3a: Percentage distribution of females with respect to how important volunteering in the 2010 FIFA world cup would relieve the stress and the tension of everyday life

In terms of the *Egoistic* subscale, an example of an item was: “I wanted to challenge my abilities.” It may be observed from Figure 4a and Figure 4b that to about 69.7% of the females this was not important. Similarly to about 70.6% of the males volunteering was not meant to challenge their abilities. The figures reveal on the other hand, that for 11.5% (females) and 15.6% (males) volunteering was for *Egoistic* reasons. That is, these volunteers did this in order to look after their own interest.

With regards to the *External* subscale, here an example of an item was: “I wanted to continue a family tradition of volunteering in sport events.” Figure 5a and Figure 5b show that in terms of this subscale 29.2% (females) and 33.1% (males) indicated that *External* reasons were of importance to them. This means that for these volunteers their motives for participation were related to activities outside of the immediate control. On the other hand, for about 59.9% of the females and about 56.9% of the males indicated that *External* reasons were of no importance to them. This suggests that this group of students would not use volunteering to continue a family tradition of volunteering in sport events, for instance.

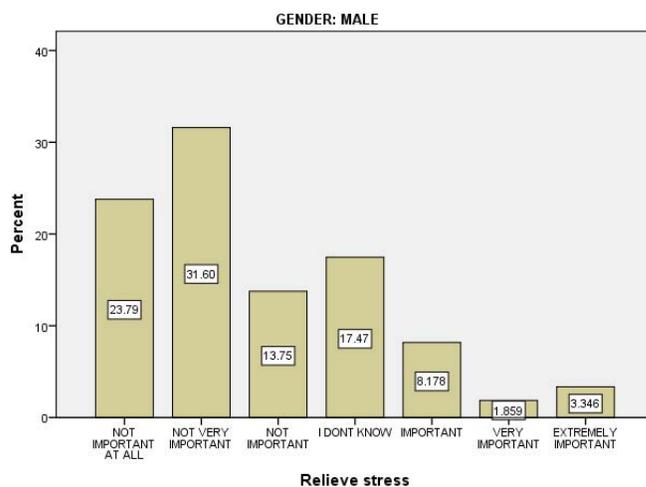


Figure 3b: Percentage distribution of males with respect to how important volunteering in the 2010 FIFA world cup would relieve the stress and the tension of everyday life

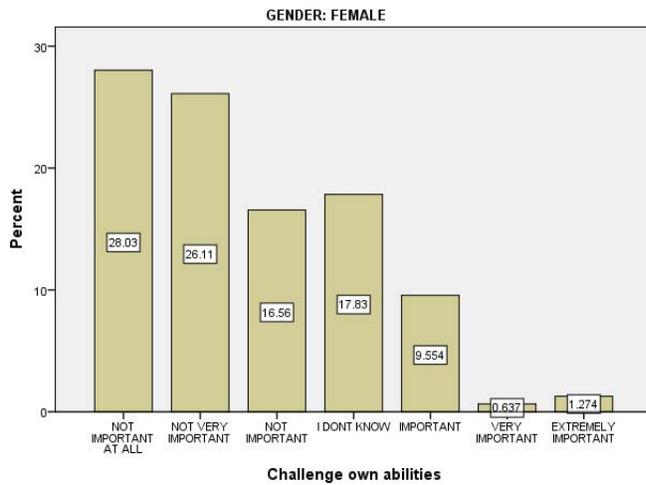


Figure 4a: Percentage distribution of females with respect to how important volunteering in the 2010 FIFA world cup was for them to challenge their abilities

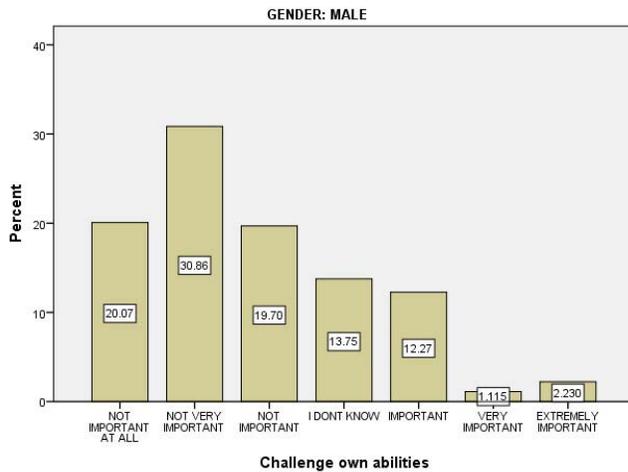


Figure 4b: Percentage distribution of males with respect to how important volunteering in the 2010 FIFA world cup was for them to challenge their abilities

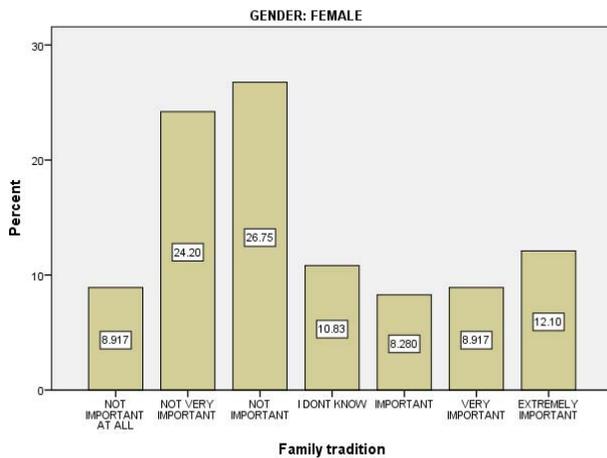


Figure 5a: Percentage distribution of females with respect to how important volunteering in the 2010 FIFA world cup was for them in continuing a family tradition of volunteering in sport events

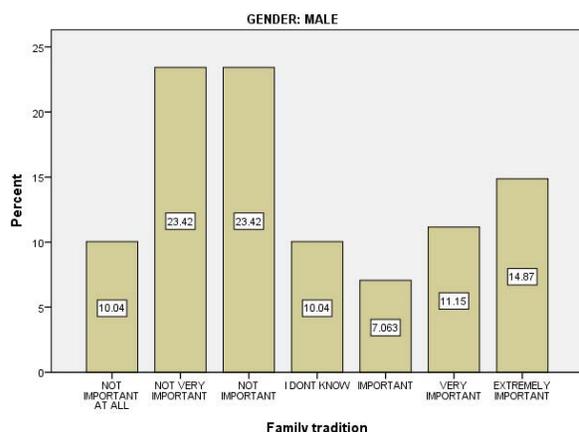


Figure 5b: Percentage distribution of males with respect to how important volunteering in the 2010 FIFA world cup was for them in continuing a family tradition of volunteering in sport events

Importance with Respect to Age and Gender

Regarding volunteerism, with respect to age and gender Table 2 shows that in terms of the *Material*, *Leisure* and *Egoistic* reasons, more students who were 18 – 20 years old felt these were not important to them compared to their counterparts. For *Purposive* reasons that were not important to students, females in the 21 -23 years age group dominated while it was the 18 – 20 years age group for males. Similarly, for *External* reasons that were not important to students, females in the 21 - 23 years age group dominated while it was the 18 – 20 years age group for males.

Table 2: Frequency distribution (%) in terms of perceived importance of the Volunteer Motivation Scale subscales with respect to gender and age (n = 425)

IMPORTANCE	GENDER	AGE			Total	
		18 - 20	21 - 23	24 +		
MATERIAL	Not Important	F	54(18.0)	47 (15.7)	11 (3.7)	112 (37.3)
		M	101 (33.7)	78 (26.0)	9 (3.0)	188 (62.7)
	I do not know	F	22 (19.6)	15 (13.4)	5 (4.5)	42 (37.5)
		M	35 (31.3)	32(28.6)	3 (2.7)	70 (62.5)
	Important	F	2 (15.4)	1 (7.7)	0 (0.0)	3 (23.1)
		M	4 (30.8)	4 (30.8)	2 (15.4)	10 (76.9)
PURPOSIVE	Not Important	F	47 (16.5)	49 (17.3)	12 (4.2)	108 (38.0)
		M	85 (29.9)	80 (28.2)	11 (3.9)	176 (62.0)
	I do not know	F	29 (22.3)	12 (9.2)	2 (1.5)	43 (33.1)
		M	54 (41.5)	31 (23.8)	2 (1.5)	87 (66.9)
	Important	F	1 (10.0)	2 (20.0)	2 (20.0)	5 (50.0)
		M	1 (10.0)	3 (30.0)	1 (10.0)	5 (50.0)
LEISURE	Not Important	F	67 (18.0)	55 (14.8)	13 (3.5)	135 (36.3)
		M	126 (33.9)	100 (26.9)	11 (3.0)	237 (63.7)
	I do not know	F	11 (22.0)	7 (14.0)	3 (6.0)	21 (42.0)
		M	12 (24.0)	14 (28.0)	3 (6.0)	29 (58.0)
	Important	F	0 (0.0)	1 (33.3)	0 (0.0)	1 (33.3)
		M	2 (66.7)	0 (0.0)	0 (0.0)	2 (66.7)
EGOISTIC	Not Important	F	26 (18.3)	20 (14.1)	7 (4.9)	53 (37.3)
		M	50 (18.7)	34 (12.7)	5 (1.9)	89 (33.3)

EXTERNAL	I do not know	F	51 (19.2)	41 (15.4)	9 (3.4)	101 (38.0)
		M	85 (32.0)	73 (27.4)	7 (2.6)	165 (62.0)
	Important	F	1 (5.9)	2 (11.8)	0 (0.0)	3 (17.6)
		M	5 (29.4)	7 (41.2)	2 (11.8)	14 (82.4)
	Not Important	F	29 (15.0)	32 (16.6)	8 (4.1)	69 (35.8)
		M	70 (36.3)	46 (23.8)	8 (4.1)	124 (64.2)
	I do not know	F	48 (21.5)	28 (12.6)	8 (3.6)	84 (37.7)
		M	68 (30.5)	65 (29.1)	6 (2.7)	139 (62.3)
	Important	F	1 (11.1)	3 (33.3)	0 (0.0)	4 (44.4)
		M	2 (22.2)	3 (33.3)	0 (0.0)	5 (55.5)

DISCUSSION

In volunteerism some people derive benefit by experiencing a sense of social connection while others do not reveal this (Alessandrini, 2007). It is interesting to note that in the current study the majority of volunteers' motive to volunteer was in a sense to gain practical experience. This conclusion is reached from the fact that the volunteering students in general indicated that the motivational subscales were not important to them. In effect they were indicating that they were not motivated by *Material*, *Purposive*, *Leisure*, *Egoistic* and *External* motivations. These findings are consistent with those reported in a study on volunteering in disability sport in South Africa (Surujlal, 2010). In that study, Surujlal (2010) reported that a minority of volunteers expected to be rewarded for volunteering. This however, is in contrast to Malaysian findings where it was reported that more than 80% of the volunteers expected to be rewarded for volunteering. It is also a possibility that the volunteers did not volunteer for praise or attention but rather for interaction with others, personal achievement and contribution to the community. This may imply that the main reason for volunteering was driven by the sense of identity with their community (Costa, Chalip, Green, & Simes, 2006). It is argued that "... volunteering for an event could form a link to community, with the primary motivation being to support and facilitate the success of the event hosted by the community" (bang & Ross, 2009, p. 69). It is possible then that the participants of this study were motivated by the fact that they were supporting, and wanted to see the success of the FIFA 2010 World Cup hosted by their country. In recruiting volunteers it is critical that officials of mega sporting events should not underestimate the sense of community identification that volunteers tend to feel. In this regard it is pointed out that officials should therefore emphasize the notion of community involvement when recruiting volunteers (Williams, Dossa, & Tompkins, 1995).

CONCLUSION

Volunteers comprise a vital resource in sport events. Without their contribution many events could simply not have been staged. The results of the present study indicate that there is not much of a difference in motivation in terms of gender and age. The characterization of the students in terms of the results presented here is extremely encouraging. It is encouraging because if this characterization is typical of university students, then a sporting nation like South Africa may have a possible source of ready volunteers. A significant contribution of this study was the fact that it provided valuable information about university student volunteers in mega sporting events. The information is important for two reasons. Firstly, it provides event managers with a better understanding of whom they could targeted as volunteers. This can be of great assistance in attracting, placing and retaining them. Secondly, university students have the potential to play an influential role of encouraging volunteerism in communities from which they come. An important aspect of this issue is that the students can help sustain the notion of volunteerism among their communities.

It is worth acknowledging that this study which followed an *ex post facto* design had inherent limitations. Firstly for instance, compared to the total population in the targeted universities the students who participated may not have been as representative. This may be because for our purposes we ensured equitable gender and course of study representation for example. Secondly, on the balance of probabilities there is a possibility that some participants did not volunteer in the 2010 FIFA World Cup. This suggests then that some of the information, although valuable, was about how the 'non-volunteers' viewed volunteerism. It would be interesting to see if replicating studies would yield similar results as reported here. It is recommended therefore

that studies that focus on volunteerism among university students should be carried out in order to disprove or validate what has been reported here.

REFERENCES

- Alessandrini, M. (2007). Community volunteerism and blood donation: Altruism as a lifestyle choice. *Transfusion Medicine Reviews*, 21, 307-316.
- Anderson, E. (2005). *In the Game: Gay athletes and the cult of masculinity*. New York: State University of New York Press
- Anderson, E. D. (2009). The maintenance of masculinity among the stakeholders of sport. *Sport Management Review*, 12, 3-14.
- Auld, C., & Cuskelly, G. (2001). Behavioral characteristics of volunteers: Implications for community sport and recreation organizations. *Parks and Leisure*, 4, 29-37.
- Bang, H., & Ross, S. (2009). Volunteer motivation and satisfaction". *Journal of Venue and Event Management*, 1, 61-77.
- Baum, T., & Lockstone, L. (2007). Volunteers and mega sporting events: Developing a research framework. *International Journal of Event Management Research*, 3, 29-41.
- Cemalcilar, Z. (2009). Understanding individual characteristics of adolescents who volunteer. *Personality and Individual Differences*, 46, 432-436.
- Chalip, L. (2000). Volunteers and the organization of the Olympic Games: economic and formative aspects. In M. Moragas, M. A. de Moreno, N. Puig (Eds.). *Global Society and the Olympic Movement* (pp. 205-214). International Olympic Committee: Lausanne.
- Cnaan, R.A., & Goldberg-Glen, R.S. (1991). Measuring motivation to volunteer in human services. *Journal of Applied Behavioral Science*, 27, 269-284.
- Connolly, K. (2002). Do women's leadership approaches support the development of social capital? Relationship building in a voluntary neighbourhood initiative. *Leisure / Loisir*, 27, 239-263.
- Costa, C. A. Chalip, B. L., Green C., & Simes, C. (2006). Reconsidering the role of training in event volunteers' satisfaction. *Sport Management Review*, 9, 165-182.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Cuskelly, G., Auld, C., Harrington, M., & Coleman, D. (2004). Predicting the behavioural dependability of sport event volunteers. *Event Management*, 9, 73-89.
- Fink, J. S. (2008). Gender and sex diversity in sport organizations: Concluding remarks. *Sex Roles*, 58, 1-2.
- George, D., & Mallery, P., (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update* (4th ed.). Boston: Allyn & Bacon.
- Getz, D. (1997). *Event Management and Event Tourism*. New York: Cognizant Communications.
- Giannoulakis, C., Wang, C., & Gray, D. (2008). Measuring volunteer motivation in mega-sporting events. *Event Management*, 11, 191-200.

- Green, B. C., & Chalip, L. (2004). Paths to volunteer commitment: Lessons from the Sydney Olympic Games. In R. A. Stebbins, M. Graham (Eds.). *Volunteering as Leisure. Leisure as Volunteering. An International Assessment* (pp. 49-67). Wallingford, Oxfordshire, UK: CABI Publishing.
- Hamidreza, M., & Azadeh, M. (2012). Sport volunteerism: a study on volunteering motivations in university students. *Journal of Human Sport and Exercise*, 7, S73-S84. Retrieved February 28, 2013, from <http://www.jhse.ua.es/jhse/article/view/299>.
- Hollway, S. (2002). Vital volunteers. *Australian Leisure Management*, 30, 58-59.
- Kemp, S. (2002). The hidden workforce: Volunteers' learning in the Olympics. *Journal of European Industrial Training*, 26, 109-117.
- Khoo, S., & Engelhorn, R. (2007). Volunteer motivations for the Malaysian Paralympiad. *Tourism and Hospitality Planning & Development*, 4, 159-167.
- Machingambi, S., & Wadesango, N. (2011). The gendered nature of the 2010 FIFA world cup and its impact on the girl child's self-efficacy and educational aspirations. *Anthropologist*, 13, 151-157
- Moragas, M., de Moreno, A. & Paniagua, R. (2000). The evolution of volunteers at the Olympic Games. In M. Moragas, A., de Moreno, N. Puig (Eds.). *Global Society and the Olympic Movement* (133-154). Lausanne: International Olympic Committee.
- Roche, M. (2000). *Mega-events: Olympics and Expos in The Growth of Global Culture*, London: Routledge.
- Slaughter, L. & Home, R. (2004). Motivations of long term volunteers: Human services vs Events. Retrieved February 28, 2012, from <http://hotel.unlv.edu/research/html/pdf/articles/MotivationsofLTvolunteers.pdf>.
- Strigas, A. D. (2003). Motivational factors for student volunteers and the development of an incentive typology in sport settings. *Research Quarterly for Exercise and Sport*, 4, 74-90.
- Strigas, A. D. & Jackson Jr., E. N. (2003). Motivating volunteers to serve and succeed: Design and results of a pilot study that explores demographic and motivational factors in sport volunteering. *International Sports Journal*, Winter, 111-123.
- Surujlal, J. (2010). Volunteer motivation in special events for people with disabilities. *African Journal for Physical, Health Education, Recreation and Dance*, 16, 447-463.
- Surujlal, J., & Dhurup, M. (2008). Volunteers' perceptions of benefits derived from volunteering: an empirical study. *South African Journal for Research in Sport, Physical Education and Recreation (SAJRSPER)*, 30, 105-116.
- Williams, P. W., Dossa, K. A., & Tompkins, L. (1995). Volunteerism and special event management: A case study of Whittler's Men's World Cup of skiing. *Festival Management & Event Tourism*, 3, 83-95.
- Wong, C., & Kwok, K. (2010). The Volunteer Satisfaction Index: A Validation Study in the Chinese Cultural Context. *Social Indicators Research*, 104, 19-32. doi: 10.1007/s11205-010-9715-3.

PICKUP AND DELIVERY PROBLEM WITH FUZZY TRAVEL TIMES FOR SUPPLY CHAINS IN SEMICONDUCTOR MANUFACTURING

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ABSTRACT

This study considers a practical pickup and delivery problem with fuzzy travel times for semiconductor supply chain (FPDP-SSC). Since FPDP-SSC involves constraints on fuzzy travel times, product/vehicle compatibility, pickup and delivery, and vehicle capacity constraints, it is more difficult to solve than the classical pickup and delivery problem. We formulate a fuzzy mathematical programming model to minimize total travel times for the FPDP-SSC. Based on extension principle, the lower and upper bounds of the fuzzy total travel times at possibility level α are calculated. From different values of α , the membership function of the objective function can be constructed. Since total travel times is expressed by a membership function instead of a crisp value, more information can be provided.

INTRODUCTION

As a semiconductor supply becomes widespread and the competition pressure is very fierce, the cross-company supply-chain operations are even more complicated such that a semiconductor manufacturer needs to integrate distribution in supply-chain networks to increase their competition edge and profitability. The development of effective and efficient tools for logistics management has therefore attracted a great attention from both practical applications and theoretical research on the field of supply chain management (Dondo *et al.* 2008; Manzini and Bindi, 2009).

With a complex supply chain structure, transportation and distribution activities emerge as one of the central issues owing to their complexity and costs. Lee *et al.* (2003) tackle the vehicle capacity planning for transportation service providing by a Singapore local logistic company. The problem can be classified as VRPTW (vehicle routing problem with time windows) with outsourcing decisions. In this paper, an advanced artificial intelligence method of tabu search heuristic is proposed for solving the problem. Karabuk (2007) deals a transportation problem for a textile manufacturing supply chain. The transportation problem involves constraints on pickup and deliveries, multiple depots, time windows, and full truckload (TL) or less than a truckload (LTL) and is solved by defining sub-problems. The proposed approach unfolds in stages which are solved to optimality and the solution one stage is the inputs to the next. Hamed *et al.* (2009) propose a multi periods mixed integer non-linear programming model for the distribution planning for natural gas supply chain. A hierarchical algorithm was presented to solve large scale problem in reasonable time. Manzini and Bindi (2009) propose a combined mixed-integer programming model with cluster analysis, heuristic algorithms, and optimal transportation rules for design and optimization of a multi echelon and multi level production/distribution system.

Rupp and Ristic (2000) present a distributed planning methodology for semiconductor manufacturing supply chains. The developed system is based on an approach that leaves as much responsibility and expertise for optimization as possible to the local planning systems while a global coordinating entity ensures best performance and efficiency of the whole supply chain. Chiang *et al.* (2007) presented an empirical supply chain model to catch the relationship between the supply chain configuration and performance matrices. Dondo *et al.*

(2008) consider the multiple vehicle time-window-constrained pickup and delivery problem (MVPDPTW). In this paper, many-to-many transportation requests, pure pickup and delivery tasks, heterogeneous vehicles and multiple depots are taken into account and solved by an exact MILP mathematical formulation. For large-scale problems, a local search improvement algorithm is also presented. Dondo et al. (2009) further consider a more general vehicle routing problem in supply chain management (VRP-SCM), which better resembles the logistics activities to be planned at multisite manufacturing firms by allowing multiple events at every location. In such a definition, both capacitated vehicle routing problem and the pickup-and-delivery problem can be regarded as a particular instances. An MILP mathematical formulation is proposed for solving the VRP-SCM.

In this study, we investigate the practical pickup and delivery problem with fuzzy travel times, which is often found in real-world practice, particularly, in semiconductor manufacturing supply chains. With a comprehensive supply chain structure, the semiconductor manufacturing supply-chain network consists of mask houses, wafer fabs, IC packaging plants, and warehouses. Sites among each other are connected by transport. Distribution activities (hereafter referred to as requests) arise from delivering wafer among fabs due to capacity backup, delivering mask from mask house to fabs, delivering material from warehouses to fabs, delivering wafer to packaging plants, delivering finished-goods to warehouse, delivering finished-goods to customers, etc.

In semiconductor factories, highly capacity utilization and efficiently production scheduling are essential due to the intensive capital investment. Requests failed to arrive within prescribed time period may result in capacity idle and even deferral delivery. In practice, determination of the travel times between two sites is very difficult, because there usually is considerable uncertainty due to factors such as the traffic conditions, incidents, breakdowns, and the variability in activity patterns, which in turn impact on travel times. Generally, the determination of travel times between two sites usually contain fuzziness owing to imprecise measurements or described by linguistic variables, such as “between 35 to 40 minutes”, “around one hour”, and so on. In such cases, travel times can be regarded as fuzzy variables. Since conventional deterministic solution techniques cannot solve the vehicle routing problems in uncertain environments, fuzzy variables can be used to tackle these uncertain parameters. Therefore, taking the fuzziness of travel times into account is of importance when planning vehicle routes and schedules for semiconductor-manufacturing supply chains.

Liu and Kao (2004a) consider the network flow problem with fuzzy arc lengths. Yager’s ranking method is adopted to transform the fuzzy network flow problem to a crisp one, and then the conventional streamlined solution methods are applied to find solutions. Zheng and Liu (2006) consider the fuzzy vehicle routing problem with time window and propose a chance constrained programming model with credibility measure to find the optimal solutions. Zheng et al. (2011) deal with a real-life urban pickup and delivery problem with consideration of time-dependent fuzzy velocity of vehicles. Alfa-Cut-Set algorithm is applied to calculate the fuzzy arriving times and a modified tabu search is then used to solve the problem. Zarandi et al. (2011) propose a simulation-embedded simulated annealing procedure to solve the multi-depot capacitated location-routing problem with fuzzy travel times.

In this study, the FPDP-SSC is investigated by taking into account fuzzy travel times, product/vehicle compatibility, pickup and delivery, and vehicle capacity constraints. The deterministic vehicle routing problem cannot cover real-life contexts when travel times are fuzzy variables (Liu and Kao, 2004a; Zarandi et al., 2011). Taking the merits of Liu and Kao (2004b) with modifications, a pair of mathematical programs will be formulated to calculate the lower and upper bounds of the fuzzy total travel times at possibility level α . From different values of α , the membership function of the objective function can be constructed. Since total travel time is expressed by a membership function, more information can be provided for decision making. The vehicle routing problem in semiconductor supply chain can be more applicable for the real-world applications.

PROBLEM DESCRIPTION

The FPDP-SSC may be defined as follows. We are given a vehicle fleet in order to serve a set of requests. The road network is represented by a graph $G = (V, E)$, where $V = (v_0, \dots, v_n)$ is a vertex set and $E = \{(v_i, v_j) : v_i \neq v_j \wedge v_i, v_j \in V\}$ is an arc set. Vertex v_0 denotes a depot at which the routes of K vehicles start and end. The set of vertices (v_1, \dots, v_n) specify the possible pickup and/or delivery sites. In practice,

determination of the travel times between two sites usually contains fuzziness because of imprecise measures or described by linguistic variables. Without loss of generality, we assume travel times \tilde{t}_{ij} are fuzzy numbers, since crisp values can be treated as degenerated fuzzy numbers.

Requests are known in advance. Each request specifies the product (mask, wafer lots, or die lots) and its amount, the pickup site, and the site to be delivered. Each request needs to be served by a single vehicle transporting lots from a specified pickup-site to a specified delivery-site without any transshipment. To fulfill the requests in the semiconductor-manufacturing supply chain, this study considers the more general pickup and delivery problem with fuzzy travel times in semiconductor manufacturing supply chains (FPDP-SSC). Since the FPDP-SSC involves fuzzy travel times and constraints on product/vehicle compatibility, pickup and delivery, and vehicle capacity constraints, the nature of the FPDP-SSC problem makes the problem unique and differentiates it from those reported in the literatures.

A set of requests are given in advance. Each request specifies the product type (mask, wafer lots, or die lots) and its amount, the pickup site ($\in V$), the delivery site ($\in V$). In the FPDP-SSC, each request have to be transported entirely by the same vehicle (pairing constraint), and pickup operation has to be served before its corresponding delivery operation (precedence constraint). Furthermore, the capacity of a vehicle can never be exceeded after visiting a site (capacity constraint).

There is one depot with fixed numbers of vehicles. On a daily basis, each vehicle starts from the depot, visit a number of sites along the selected route, and returns to the depot. Moreover, in order to protect products from vibration during transportations, some vehicles are with special facilities dedicated for 8" wafers, some are dedicated for 12" wafers, whereas others are open for all types of products. At each visit, the vehicle can perform pickup, delivery, or combined pickup and delivery without violating vehicle capacity and product/vehicle compatibility restrictions.

For the fleet of K vehicles, some vehicles are with special facilities dedicated to carry 8" wafers, some are dedicated for 12" wafers, while other vehicles are open for carrying all products. When assigning requests to vehicles, product-type must conform to the vehicle facility. In order to optimally manage the complicated distribution systems, transportation activities between sites are coordinated by allowing multiple activities at each site. In this way, two or more vehicles may visit a given site to perform pickup and/or delivery operations, and vehicle routes may include several stops at the same site. Note that, the capacity of a vehicle can never be exceeded after visiting a node.

FUZZY MATHEMATICAL PROGRAMMING MODEL

We first define $V = \{v_j | v_0, v_1, \dots, v_n\}$ containing $n+1$ nodes in the supply chain environment, in which node v_0 representing the depot node while remaining J nodes (v_1, \dots, v_n) representing n sites to be visited. Let \tilde{t}_{ij} be the travel time from site v_i to site v_j . Travel time \tilde{t}_{ij} is assumed to be a fuzzy number. $F = \{f_k | k = 1, \dots, K\}$ is defined as the fleet of homogeneous vehicles containing a set of K vehicles. We also define $A = \{0, 1, 2\}$ as the set of type-code, in which code 0 representing general type, code 1 representing 8" wafer and code 2 representing 12" wafer. Let c_k ($c_k \in A$) be the vehicle-type code of vehicle f_k . Let T be the time-length of the planning period and W be the predetermined vehicle capacity.

We define $R = \{r_q | q = 1, 2, \dots, Q\}$ containing Q requests to be scheduled in the planning period. Each request r_q is associated with a product-code d_q ($d_q \in A$), with $d_q = 1$ if request r_q dealing with 8" wafer, $d_q = 2$ if request r_q dealing with 12" wafer, and $d_q = 0$ otherwise. Since each request have to complete both pickup and delivery operations in this planning period, we also define an operation set $O = \{o_i | i = 0, 1, 2, \dots, I\}$ containing $I+1$ operations ($I = 2Q$). In which o_0 represents initial state. Each operation o_i contains only one

operation, pickup or delivery. In such a case, a request r_q contains pickup and delivery activities, would correspond to two operations, one operation, o_i ($i = 1, \dots, Q$), for pickup-operation of request r_q and the other operation, o_i ($i = Q + 1, \dots, 2Q$), for delivery-operation of request r_q . Each operation o_i is associated with a request r_q ($\in R$), product-type code d_q ($\in A$), lot size n_q , a visit-site s_i ($\in V$), and a pickup-or-delivery code e_i . Let e_i be the pickup-or-delivery code, with $e_i = 1$ if operation o_i ($i = 1, \dots, Q$) is a pickup-operation, and $e_i = -1$ if operation o_i ($i = Q + 1, \dots, 2Q$) is a delivery-operation.

Let cw_{ik} be the variable representing the upper bound on the load of vehicle f_k upon completing operation o_i . Let x_{ik} be the variable indicating whether the operation o_i is scheduled on vehicle f_k , with $x_{ik} = 1$ if operation o_i is scheduled on vehicle f_k , and $x_{ik} = 0$ otherwise. Let y_{ijk} be the precedence variable defined on two operations o_i and o_j scheduled on vehicle f_k , with $y_{ijk} = 1$ if operation o_i precede operation o_j (not necessarily directly), and $y_{ijk} = 0$ otherwise. Let p_{ijk} be the direct-precedence variable defined on two operations o_i and o_j scheduled on vehicle f_k , with $p_{ijk} = 1$ if operation o_i direct precede operation o_j , and $p_{ijk} = 0$ otherwise.

To find a route for each vehicle so as to visit the customers which minimizing the total travel times without violating the product/vehicle compatibility and capacity restrictions, we consider the following fuzzy mathematical programming model.

$$\text{Minimize } \sum_{k=1}^K \sum_{i=0}^I \sum_{j=0}^I p_{ijk} \tilde{t}_{(s_i)(s_j)}$$

s. t.

- (1) $\sum_{i=0}^I \sum_{j=0}^I (p_{ijk} \tilde{t}_{(s_i)(s_j)}) \leq T$, for all k ,
- (2) $\sum_{k=1}^K x_{ik} = 1$, for all $i = 1, \dots, I$,
- (3) $(x_{ik} - x_{jk}) \leq M |r_i - r_j|$, for all i, j, k ,
- (4) $(y_{ijk} + y_{jik}) - x_{ik} \leq 0$, for all i, j, k ,
- (5) $(y_{ijk} + y_{jik}) - x_{jk} \leq 0$, for all i, j, k ,
- (6) $(y_{ijk} + y_{jik}) - (x_{ik} + x_{jk} - 1) \geq 0$, for all i, j, k ,
- (7) $y_{i^*k} - M(y_{ijk} + y_{ji^*k} - 2) \geq 1$, for all i, j, k ,
- (8) $y_{ijk} - p_{ijk} \geq 0$, for all i, j, k ,
- (9) $\sum_{i \neq j} p_{ijk} \leq 1$, for all i, j, k ,
- (10) $\sum_{i \neq j} p_{jik} \leq 1$, for all i, j, k ,
- (11) $\sum_{i=0}^I x_{ik} - \sum_{i=0}^I \sum_{j=0}^I p_{ijk} = 1$, for all k ,
- (12) $(e_i - y_{ijk}) + (x_{ik} + x_{jk} - 2) \leq M |r_i - r_j|$, for all i, j, k ,
- (13) $x_{ik} c_k |d_i - c_k| \leq 0$, for all i, k ,
- (14) $cw_{ik} \geq (cw_{jk} + n_i e_i x_{ik}) - M(1 - p_{jik})$, for all i, j, k ,
- (15) $0 \leq cw_{ik} \leq W$, for all i, k ,

- (16) $cw_{0k} = 0$, for all k ,
 (17) $x_{0k} = 1$, for all k ,
 (18) $y_{i0k} = 0$, for all i, k ,
 (19) $c_k \in \{0, 1, 2\}$, for all k ,
 (20) $d_i \in \{0, 1, 2\}$, for all i ,
 (21) $x_{ik} \in \{0, 1\}$, for all i, k ,
 (22) $y_{ijk} \in \{0, 1\}$, for all i, j, k ,
 (23) $p_{ijk} \in \{0, 1\}$, for all i, j, k .

The objective function seeks to minimize the total traverse time. Travel time \tilde{t}_{ij} is a fuzzy number. The constraints in (1) control the upper bound on the completion time of each route. The constraints in (2) guarantee that the operation o_i is scheduled on one vehicle exactly once. The constraints in (3) ensure that operation o_i and o_j need to be scheduled on the same vehicle ($x_{ik} = x_{jk}$) when two operations o_i and o_j are belong to the same request ($r_i = r_j$). The number M is a constant, which is chosen to be sufficiently large.

The constraints in (4)~(6) ensure that one operation can precede another ($y_{ijk} + y_{jik} = 1$) if two operations o_i and o_j are scheduled on the same vehicle f_k ($x_{ik} = 1$ and $x_{jk} = 1$). The constraints in (7) ensure that the operation o_i precedes operation o_{i^*} ($y_{ii^*k} = 1$) when the operation o_i precedes operation o_j ($y_{ijk} = 1$) and the operation o_j precedes operation o_{i^*} ($y_{ji^*k} = 1$). The constraints in (8) ensure that operation o_i could precede operation o_j directly ($p_{ijk} = 1$) only when $y_{ijk} = 1$ and operation o_i could not precede operation o_j directly ($p_{ijk} = 0$) if $y_{ijk} = 0$. The constraints in (9) ensure that at most one operation o_j could be scheduled after operation o_i directly for all the operations scheduled on the vehicle f_k . The constraints in (10) ensure that at most one operation o_j could be scheduled precede operation o_i directly for all the jobs scheduled on the vehicle f_k . The constraints in (11) state that there should exist $N-1$ directly-precedence variables, which set to one, on the schedule with N operations.

The constraints in (12) ensure that pickup-operation o_i precedes delivery-operation o_j ($y_{ijk} = 1$ and $e_i = 1$) when operations o_i and o_j are belong to the same request. The constraints in (13) ensure product/vehicle compatibility. Operation o_i can scheduled on vehicle f_k only when product-type code equals to vehicle-type code or vehicle is for general purpose ($x_{ik} = 1$ if $d_i = c_k$ or $c_k = 0$). The constraints in (14) define vehicle load cw_{ik} upon operation o_i is completed by vehicle f_k . The constraints in (15) control the upper bound on the load of the vehicle.

THE SOLUTION PROCEDURE

Taking the merits of Liu and Kao (2004b) with modifications, a fuzzy mathematical program based on extension principle can be solved as follows.

In the FPDP-SSC, assume that all the travel times are triangular fuzzy numbers defined as Equation (24) and the membership function $\mu_{\tilde{t}_{ij}}$ is shown in Figure 1.

$$(24) \quad \tilde{t}_{ij} = [t_{ijl}, t_{ijm}, t_{iju}], \text{ for } i, j = 0, 1, 2, \dots, n.$$

The α -cuts of the fuzzy travel time \tilde{t}_{ij} are represented as

$$(25) \quad \begin{aligned} (t_{ij})_{\alpha} &= \left[(t_{ij})_{\alpha}^L, (t_{ij})_{\alpha}^U \right] \\ &= \left[\min_{t_{ij}} \left\{ t_{ij} \in S(\tilde{t}_{ij}) \mid \mu_{\tilde{t}_{ij}}(t_{ij}) \geq \alpha \right\}, \max_{t_{ij}} \left\{ t_{ij} \in S(\tilde{t}_{ij}) \mid \mu_{\tilde{t}_{ij}}(t_{ij}) \geq \alpha \right\} \right], \end{aligned}$$

where $S(\tilde{t}_{ij})$ is the supports of \tilde{t}_{ij} .

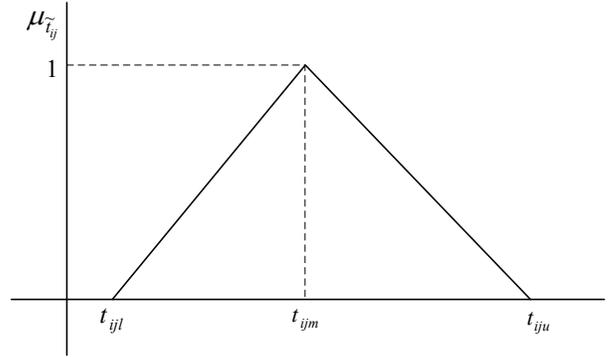


Figure 1. A membership function of triangular fuzzy number.

Let p_{ijk} be the direct-precedence variable defined on two services, i and j , scheduled on route k , with $p_{ijk}=1$ if service i direct precede service j , and $p_{ijk}=0$ otherwise. Total travel times Z would be as equation (26). Intuitively, if the travel time is fuzzy, the total travel times Z becomes fuzzy as well.

$$(26) \quad \tilde{Z} = \min_k \sum_i \sum_j p_{ijk} \tilde{t}_{(s_i)(s_j)}$$

$$(27) \quad \text{s.t. } \tilde{t}_{(s_i)(s_j)} x \leq A,$$

$$(28) \quad \begin{aligned} g(x) &\leq B, \\ x &\geq 0 \end{aligned}$$

where $g(x) \leq B$ are crisp constraints.

Based on extension principle (Yager, 1986; Zadeh, 1965; Zimmermann, 1996), the lower bound and upper bound of the α -cuts of \tilde{Z} can be calculated via the following programs:

$$(29a) \quad Z_{\alpha}^L = \min_{(t_{ij})_{\alpha}^L \leq t_{ij} \leq (t_{ij})_{\alpha}^U} \left\{ \begin{array}{l} \min \sum_k \sum_i \sum_j p_{ijk} \tilde{t}_{(s_i)(s_j)} \\ \text{s.t. } \tilde{t}_{(s_i)(s_j)} x \leq A \\ g(x) \leq B \\ x \geq 0 \end{array} \right.$$

$$(29b) \quad Z_{\alpha}^U = \max_{(t_{ij})_{\alpha}^L \leq t_{ij} \leq (t_{ij})_{\alpha}^U} \left\{ \begin{array}{l} \min \sum_k \sum_i \sum_j p_{ijk} \tilde{t}_{(s_i)(s_j)} \\ \text{s.t. } \tilde{t}_{(s_i)(s_j)} x \leq A \\ g(x) \leq B \\ x \geq 0 \end{array} \right.$$

According to Equations (29a) and (29b), the membership function $\mu_{\tilde{Z}}$ is constructed as:

$$(30) \quad \mu_{\tilde{z}} = \begin{cases} L(z), & (Z)_{\alpha=0}^L \leq z \leq (Z)_{\alpha=1}^L \\ 1, & (Z)_{\alpha=1}^L \leq z \leq (Z)_{\alpha=1}^U \\ R(z), & (Z)_{\alpha=1}^U \leq z \leq (Z)_{\alpha=0}^U \end{cases} .$$

A mathematical programming solver Lingo can be used to solve the fuzzy programming model. $L(z)$ and $R(z)$ are the left and right shape functions of $\mu_{\tilde{z}}$, respectively. Numerical method can be used to determine the solution for $(z)_{\alpha}^L$ and $(z)_{\alpha}^U$ at various α values and approximate the shapes of $L(z)$ and $R(z)$ (Liu and Kao, 2004b).

CONCLUSIONS

In this study, we considered the pickup and delivery problem with time windows and fuzzy travel times for semiconductor supply chains (FPDP-SSC), a practical generalization of the vehicle routing problem, and often found in real world practice, particularly, in the IC manufacturing industry. The FPDP-SSC involves constraints on fuzzy travel times, product/vehicle compatibility, pickup and delivery, and vehicle capacity constraints, therefore it is more difficult to solve than the classical pickup and delivery problem. The objective is to find a set of routes and schedules for the vehicles at minimum travel distance without violating product/vehicle compatibility, pickup and delivery, driver duration, and vehicle capacity constraints. A fuzzy mathematical programming model is presented to resolve the FPDP-SSC. Based on extension principle, the lower and upper bounds of the fuzzy total travel times at possibility level α are calculated. From different values of α , the membership function of the objective function can be constructed. Since total travel times can be expressed by a membership function instead of a crisp value, the vehicle routing problem in semiconductor supply chain can be more applicable for the real-world applications.

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REFERENCES

- Chiang, D., Guo, R.-S., Chen, A., Cheng, M.-T., & Chen, C.-B. (2007). Optimal supply chain configurations in semiconductor manufacturing. *International Journal of Production Research*, 45(3), 631-651.
- Dondo, R., Méndez, C. A., & Cerdá, J. (2008). Optimal management of logistic activities in multi-site environments. *Computers & Chemical Engineering*, 32, 2547-2569.
- Dondo, R., Méndez, C. A., & Cerdá, J. (2009). Managing distribution in supply chain networks. *Industrial & Engineering Chemistry Research*, 48(22), 9961-9978.
- Hamed, M., Farahani, R. Z., Husseini, M. M., & Esmaeii, G. R. (2009). A distribution planning model for natural gas supply chain: a case study. *Energy Policy*, 37, 799-812.
- Karabuk, S. (2007). Modeling and optimizing transportation decisions in a manufacturing supply chain. *Transportation Research Part E*, 43, 321-337.
- Lee, L. H., Tan, K. C., & Chew, Y. H. (2003). Vehicle capacity planning system: a case study on vehicle routing problem with time windows. *IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans*, 33(2), 169-178.

- Liu, S.-T. & Kao, C. (2004a). Network flow problems with fuzzy arc lengths. *IEEE Transactions on Systems, Man, and Cybernetics-Part B: Cybernetics*, 34(1), 765-769.
- Liu, S.-T. & Kao, C. (2004b). Solving fuzzy transportation problems based on extension principle. *European Journal of Operational Research*, 153, 661-674.
- Manzini, R. & Bindi, F. (2009). Strategic design and operational management optimization of a multi stage physical distribution system. *Transportation Research Part E*, 45, 915-936.
- Rupp, T. M. & Ristic, M. (2000). Fine planning for supply chains in semiconductor manufacture. *Journal of Materials Processing Technology*, 107, 390-397.
- Yager, R. R. (1986). A characterization of the extension principle. *Fuzzy Sets and Systems*, 18, 205-217.
- Zadeh, L. A. (1965). Fuzzy Sets. *Information and Control*, 8, 338-353.
- Zarandi, M. H. F., Hemmati, A., & Davari, S. (2011). The multi-depot capacitated location-routing problem with fuzzy travel times. *Expert Systems with Applications*, 38, 10075-10084.
- Zheng, S., Cao, J., Lian, X., & Li, K. (2011). Urban pickup and delivery problem considering time-dependent fuzzy velocity. *Computers & Industrial Engineering*, 60, 821-829.
- Zheng, Y. & Liu, B. (2006). Fuzzy vehicle routing model with credibility measure and its hybrid intelligent algorithm. *Applied Mathematics and Computation*, 176, 673-683.
- Zimmermann, H. J. (1996). *Fuzzy Set Theory and Its Applications*, 3rd ed. (kluwer Academic Publisher, Boston).

SHALLOW FINANCE AND CENTRALIZED GOVERNMENTS – THE VICIOUS CIRCLE OF SOCIO-ECONOMIC BACKWARDNESS

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ABSTRACT

Why is it that the ancient societies of the Middle East and North Africa with their thousands of years of civilization and generous endowment of natural resources have such a difficulty placing their societies on the path to economic prosperity, modernity, and democracy? The purpose of this paper is to answer this question by arguing that the Middle Eastern countries are generally characterized with autocratic governments and shallow financial systems. These two characteristics that get hardened by enforcing each other create socio-economic backwardness in the region by forming a vicious circle from which the countries of Middle East have such a hard time to break out.

INTRODUCTION

The purpose of this paper is to explain that: 1) not only the existence of centralized governments, corruption, and shallow finance are the major barriers to economic development but together they constitute a vicious circle of socio-economic stagnation that is so difficult to overcome, 2) outside intervention and top-down political and economic reforms cannot be viable and effective in breaking this vicious circle, and 3) only grass route changes in the developing countries of the Middle East combined with free-trade and unthreatening political and trade relations with the industrialized nations is the proper way of breaking this vicious circle.

The neo-classical financial management theories are used to explain that: 1) the finance in the countries of the region is “*Shallow*” or “*Repressed*”, and 2) the shallowness of finance has caused severe inefficiency in utilization of scarce resources leading to sluggish economic growth and slow advancement toward modernity and democracy in the area. Repressed finance is the means by which the corrupt officials of the region’s autocratic regimes obtain monopoly rent from certain economic activities that are under their direct control. Shallow finance, then provides the means and the necessary conditions for the existence and continuation of corrupt and tyrannical governments in the Middle East. These governments tend to avoid the kind of reforms in their economies that would lead to deepening of finance and rapid economic growth on the one hand and the loss of their windfall earnings on the other. This research further reveals that the emergence and continuation of oppressive regimes in the region is also the result of centuries of stalemate in the evolution of politics in the area. Such a stalemate is caused by the existence of religious zeal and an abundant amount of petro-dollars combined with the strategic location of the region that has invited the intervention in the region of colonial powers. The first section of the paper is devoted to a brief review of the evolution of socioeconomic systems in the West. Such a study will provide the standards against which the economic and social developments in the Middle East can be compared and contrasted. Upon such a comparison one will be able to understand the nature of the vicious circle of socio-economic stagnation in this strategically important part of the world.

Renaissance and Reformation Movements in the West

Despite its natural riches and exceptional geographic and strategic location, the movement toward an all-inclusive economic progress, modernity, and democratic form of government in the Middle East has been

intermittent and slow. The success of these nations in achieving socio-economic advancements is still in doubt despite the recent political shake ups in the region which are wishfully titled the Arab Spring. A brief history of economic and social developments in the West can be instrumental in understanding the nature of the barriers to economic growth and adverse conditions in the Middle Eastern countries that prevent these nations from establishing highly efficient market economies that would lead to improvements in the general well-being of their people.

In his book, *The Moral Consequences of Economic Growth*, Benjamin Friedman (2005) provides a chronological description of how the accumulation of scientific discoveries combined with a new economic outlook unleashed a rapid rate of economic growth in the 18th Century Europe that spread around the globe and is continuing to do so to this date. The new economic outlook resulted from a new and different interpretation of the tenets of Christianity by “Reformists” and from the innovative ideas put forward by “Enlightenment” thinkers. Friedman also explains how faster economic growth in a society characterized with free-market capitalism can lead to greater social, political, and moral developments in that society. A summary of the views expressed by Friedman should start from his observation in history that the praise for less extravagant life and admiration for those who adhered to self-denial was a continual theme in Christian Europe until “Renaissance.” Renaissance which refers to the rich development of Western Civilization initially appeared in Italy at the beginning of 14th century and spread all over the Western Europe during the next two centuries. The incredible developments in science that resulted in commerce and economic expansion in Italy and other European countries, led to rapid progress in scholarship, literature, and the arts. All of these provided the background for having a new view of the world. Renaissance also brought a new meaning to individual expression, self-consciousness, and worldly experience. During renaissance, people in the emerging nation states of Europe began engaging in exploration and a revolution in commerce started.

On another front, the “Reformation” which is the term used to signify the desire for change within the church started in parallel with Renaissance. Reformed Protestant thinking that paved the way for the new ideas that culminated later in the “Enlightenment” thoughts emphasized the scientific discoveries and the general education throughout the society. At the same time, due to efforts made by theologians such as Luther, Calvin and other reformists the emphasis on the individual and its study of ancient texts increased. The Reformation ultimately led to freedom of dissent. Luther started his open attacks on doctrines and authority of the church on October 17, 1517 and his insistence on reading the Bible made the individual to assume greater responsibility for his own salvation. In 1536, Geneva became the centre for the teaching of John Calvin who was considered the greatest theologian of Protestantism. In England, Henry the VIII issued the act of Supremacy in 1534 which rejected papal control and created the National Church of England. In the meanwhile, Calvinistic thoughts were still strong in England and caused further reforms. In summary, Reformation, and its outcome, Protestantism, changed the outlook and created a dynamism that has continued to exert influence to the present day. This movement with its emphasis on personal responsibility and individual freedom; its refusal to take authority for granted; its effect on breaking the hold of the church upon life and the consequent secularization of life and attitudes changed the world tremendously.

The Enlightenment Movement, Economic growth, and Democracy

Reformation and Renaissance’s intellectual outlooks and their associated cultural manifestations led to the emergence of a new movement called the “Enlightenment.” By the 18th century people were witnessing the unending series of scientific discoveries and inventions and were benefiting from commodities manufactured from practical applications of these scientific advances. This created a positive view in the society that the scientific progress that had been achieved could indeed continue and accumulate over time. Also some thinkers came up with this idea that economic growth and rising living standards could cause public attitudes and political institutions to evolve in manners that improve the *moral character of the society*. Such an idea with a convincing explanation of how this process comes about was primarily the intellectual product of a group of 18th century thinkers such as Adam Smith and Anne Robert Jacques Turgot who became known as members of “*Enlightened Movement*”. Through their writings these leaders showed that education and scientific discoveries combined with discipline, hard work, thrift, patience, division of labor, and specialization are conducive to greater productivity in a free-market economy. Also, from the support that Calvin and his followers gave knowingly or unknowingly to the development of commerce and manufacturing activities, it can be argued that

the Reformed Protestant denominations undoubtedly accepted, rather than resisting, the major institutions of the dynamic economic world such as division of labor, specialization, trade, wage labor, banks and credit. The vital Smith, Turgot, Mandeville, and other Enlightenment thinkers played in the development of commerce and industries is brilliantly expressed by Friedman (2005, p. 40) who summarizes their views on commerce and industrialization as: "Rather than worrying about how to suppress individuals' insatiable appetites, as the Stoics of ancient Greece had done, or simply railing against them as countless religious sects had, Mandeville, Smith, and their followers believed that commerce would harness those appetites to serve the society as a whole. Just as insatiable curiosity drove the quest for scientific discovery, insatiable material wants drove the economic machine." Also a counter argument to the medieval religious injunction that all economic activity must be for the common good was made that, under the arrangements imposed by commerce, economic activity driven by self-interest *was* for the common good. Friedman (2005) goes on to explain that the enlightenment thinkers recognized that commerce can reward some important personal traits such as honesty, order, reliability, punctuality, discipline, and enthusiasm to be helpful and friendly toward one's fellow citizens and as a result can intrinsically create these traits in the citizens of a country. These are human characteristics that religions including Christianity and Islam have not been able to completely promote in human societies. Even passing of laws in a society cannot guarantee that majority of citizens try to uphold these very important human traits. In a commercial world and in a free society, individuals who adopt these and other similar personal characteristics could achieve greater success both financially and spiritually. The society as a whole will also be served in the form of greater output, less criminal acts, and greater spirit of cooperation as its citizens gradually acquire these traits.

Smith, Turgot and their followers also realized that the improvement in productivity and rising of incomes in commercialized societies could cut down on human efforts that were necessary for feeding, clothing, and sheltering of a given population. The released time from subsistence activities could, then be used by individuals to engage in other activities such as reading, writing, education, creating the artifacts, discussing the policy issues and participating in the society's governing institutions. In reasoning this way, Smith and other Enlightenment thinkers foresaw much of the thinking about political democracy that emerged over the next century. It is important to emphasize that Smith, Turgot, and their contemporaries did not suggest that the increase in economic growth and rising incomes necessarily lead to the development of the above traits in members of a society and its progress toward democracy. They saw these developments in individuals' behavior and outlooks, as well as the implications they drew for equality and democracy, as a consequence of "commerce" itself and its industrialization outcome. But considering the effects that rising incomes have on the further development of these traits reinforces the above original argument (Friedman 2005).

The Development of Financial Systems in the Industrialized Nations

Modernization and economic development in the European Countries and the United States could not proceed without swift and steady deepening in their financial systems. Almost all the wealthy countries of the world are characterized with high levels of financial development. The financial intermediaries in these societies play important roles in direct and indirect finance. Experience shows that markets in general are highly efficient in the allocation of resources and are very effective at coordinating the behavior of millions of firms and families in any economy. Financial markets are especially important because they price economic resources and allocate them to their most productive uses. Lending and borrowing involve transaction costs, like the cost of writing a loan contract, and information costs, like the cost of investigating the trustworthiness of a borrower. Financial institutions exist to minimize these costs. These institutions perform several important roles in a mature economy. They pool the resources of small savers; provide safekeeping and recording services; offer access to payment system; provide liquidity and ways to transfer and diversify risk; and collect and process information in manners that reduce information costs. Financial markets require superior information to work well. When the cost of obtaining that information is excessive, they cease to function. There is also information asymmetry in the market which means the issuers of financial securities know much more about their performance and business prospects than investors and potential lenders. The asymmetric information leads to the problems of *adverse selection* and *moral hazard* that cause serious hindrance to the operation of financial system and flow of funds from savers to investors. A sophisticated financial system in an advanced economy resolves these problems by providing more information for investors. Transparency laws combined with industry regulations and screening and rating provided by credit agencies persuade investors that firms' stocks and bonds are of high

quality and are worth the price paid for them. In most industrialized nations, financial deepening has taken place by maintaining relatively high and steady real interest rates within comparable categories of bank deposits and loans and by eliminating undue reserve requirements, interest ceilings, and mandated credit allocations on the one hand, while stabilizing the price level through appropriate macroeconomic measures on the other. It is generally accepted by economists that countries which liberalize their financial systems to an efficient level and their monetary authorities induce the expectations of a low and steady rate of inflation, do normally experience a high rate of growth in their economies. Most recently, the countries such as Malaysia, South Korea, Sri Lanka, Singapore, and the Philippines provide historical evidence in support of this view (McKinnon, 1986). Patrick (1966) argues that the increased supply of financial services in response to demand may not be automatic, flexible, or inexpensive in underdeveloped countries. We will go beyond this argument and discuss in the next section that some developing countries like the ones in the Greater Middle East have made their economic development even more lethargic by following the types of monetary and fiscal policies that have repressed their financial industries to the point of making them an impediment to economic growth.

Market Economy and Democracy in the Greater Middle East.

In the 21st century, not even one of the Muslim nations of the Middle East has thoroughly experienced the above path to socioeconomic development. Islam is the common faith practiced by the people in the entire region. Can the excesses of Islam be blamed for the region's sluggish socioeconomic development? The truth is that Islam has never downplayed the role of trade in the economy. After all, Prophet Muhammad himself is said to have been an honest and successful merchant. This positive outlook toward trade in Islam has been more than offset by its negative influence on economic growth and capital accumulation in the region. Issawi (1982) divides the negative influence of Islam on the economy into two effects. He argues that 1) Islam, as a conservative religion, justified and supported the existing forms of governments and the status quo, and therefore it has continuously subdued the emergence of other creative intellectual, social, political, and economic forces. 2) Islam, as an egalitarian and interventionist religion, has been a hindrance to rapid economic growth and accumulation of wealth throughout the Middle East.

The first influence is supported by the fact that Islam maintained and built upon the totalitarian regimes that existed in the region in the 7th century when it began dominating the area. Even the revolution in Iran in 1978 and the recent socio-political upheavals (Arab Spring) in the region have proven ineffective in eliminating the reactionary forces of Islam that are at work to reestablish and maintain the centralized and oppressive governments in the region. Issawi (1982) argues that, in contrast to the Western Roman Empire, the Sassanian and Byzantine Empires did not break down following the defeat of these two superpowers by Arabs in the early Middle Ages. Arabs soon succeeded in establishing a strong and a fairly centralized government similar to the collapsed regimes in Byzantine and Persia. In Issawi's words: "Whereas in Western Europe the ground was cleared for the growth of numerous and vigorous independent centers of power and activity—Church, city states, feudal principalities, universities, guilds, and other associations—in the Middle East the continued power of the state with its centralized apparatus stifled such developments" (Issawi, 1982, p.170). Issawi goes on to explain that in the Middle East there have not been strong local governments: the municipal autonomies have always been limited, and the entire state machinery has remained in the hands of kings, soldiers, bureaucrats, and clergies whose main objectives have been to raise enough taxes and tariffs to finance wars and meet their salaries and other expenses. The centralized nature of governments in the region also explains the precariousness of property. In Issawi words (1982, p. 171) "from the early caliphate on, the history of the region is replete with accounts of the confiscation of property of merchants, officials, and others; similarly, with few exceptions, landed estates did not remain in the same family for many generations. No student of European history can doubt the importance of security of property in the rise of capitalism, and its absence goes a long way to explain the lack of a parallel development in the Middle East." It is also important to consider that the colonization of the Middle East by Western powers and the flow of petrodollars to the regimes after the discovery of oil in the region in the 20th century further enforced the existence and continuation of centralized governments in the area. The concentration of political powers in the hands of a few autocrats, theologians, and military leaders has resulted in rigid state bureaucracies that make it difficult for producers to anticipate enough certainty in the economic environment and enjoy sufficient autonomy to set up institutions that could further their interests and expand their economic base, thereby enlarging the productive capacity of the economy.

In the opinion of the author of this paper the leaders of enlightenment movement were right when they assumed that the improvement in the standards of living and having some free time to spend on matters other than working to attain a level of subsistence are necessary for the public attitudes and political institutions to evolve in manners that improve the moral character of a society. The centralized governments dominated by clerics have prevented or at least slowed down the process of industrialization, economic growth, and uniform development of moral characters such as discipline, honesty, moderation, endurance, and thriftiness in the Middle Eastern societies. Democratization of the governments in the region has also been postponed because of the dominating influence of the highly corrupt public sectors and lack of vibrant private enterprises and free-market transactions in these countries. As it was discussed in the above, manufacturing commodities and participating in free-market transactions requires negotiation, bargaining, and eventual compromise and engaging in these activities provides the conditions for the development of democracy.

In summary, the reappearance and continuation of centralized governments following the emergence and domination of Islam in the Middle East has slowed down the process of commercialization, industrialization, and democratization in the region. Besides, Islam, at least in the way it has evolved over the past 14 centuries, resembles the Pre-reformation Christianity that did not suppose people to have personal responsibility and individual freedom. Muslims have always been forced to take systems of authority for granted and accept the hold of Muslim kings, Military leaders, and Clerics upon their lives. As we saw earlier in this paper, the “Reformation” in Christianity emphasized personal responsibility and individual freedom. Its refusal to take authority for granted, and its effect on breaking the hold of the Church upon life and the consequent secularization of life and attitudes changed the Western world tremendously. A similar reform movement in Islam is long overdue.

The review of history in this section revealed that commerce and free-market capitalism in a less-regulated and transparent society can induce discipline, honesty, capital formation, industrialization, and economic growth. These changes are the necessary conditions for the development of tolerance and democracy in a society. What the countries in the Middle East really need is a less government involvement in economic affairs, a much larger dosage of private sector activities, and a high degree of financial deepening. The first two remedies are clear enough; financial deepening requires some clarification which is discussed in the next section.

Financial Repression in the Middle Eastern Countries

History shows that autocratic governments in the Middle East cannot last without monopolizing of the major economic activities and controlling the oil industry in their countries. The access to petrodollars by some and foreign aid by others combined with money raised through tariffs and inflation taxes provide these governments with enough resources to finance wars, meet the salaries of their soldiers, and enforce the security of their autocratic regimes against the opposition forces from within and without. They have also used religious zeal which is enforced and enhanced by clerics to silent dissent. In addition, they adhere to economic populism to cling to certain privileges in banking, imports, exports, credit, and government contracts. Economic populism used by governments in the region leads to “shallowness of finance.” Shallow or “repressed” finance which is normally associated with corruption at all levels of government lead to low rate of economic growth, severe inequality in the distribution of income, and extreme poverty for the unprivileged groups in the society.

Edward Shaw (1973) explains that shallow finance occurs in an economy where the government distorts certain financial prices such as interest rates and foreign exchange rates in an attempt to clear the excess demand and excess supply in many other markets. The disequilibrium in the markets is usually the result of the government interventionist policies in the economy. The ultimate aim of such policies that are intensively used in the Middle East is to satisfy the interests of certain classes or groups of individuals such as, soldiers, civil servants, traditional merchants of bazaar, clergies, etc., that help maintaining the hegemony of governments over their tyrannized populations. The governments are constantly at work to bring into balance the disequilibrium in the different markets in these economies. The disequilibrium in the markets have are brought into balance by distorting the financial prices like the interest and foreign exchange rates and by the use of other policies such as rationing, price controls and taxing through inflation, etc. Where the finance is shallow the holders of financial assets including money are not rewarded adequately via real growth in their portfolios. The real rate of interest on their money balances becomes zero or even negative. In that case the demand for financial assets becomes

repressed by low real rates of interest and the supply of primary securities is repressed by credit rationing. Shallow finance in the Middle Eastern countries is also associated with overvaluation of domestic currencies in the financial markets. Shallow finance ultimately leads to demanding a premium on domestic balances in terms of foreign balances as well as a premium in present balances on future balances. It encourages consumption and importing and discourages saving and exporting. The ultimate result of these will be a slow economic growth and unequal distribution of income. Deepening of finance refers to elimination of distortions in relative prices in the financial markets and beyond. The following summarizes the way finance is repressed and the economic and social outcomes of it in the Middle Eastern countries.

1. Generally, the countries of the Middle East have repressed real financial growth in their economies through manipulating prices in all markets especially the markets for financial assets. The government interventions include the creation of an on-going, positive, and variable inflation rate together with stipulating loans and deposit rates at banks and other institutions of organized financial market. These policies have led to excess supply of primary securities that result from the existence of investment opportunities and shortage of savings to finance them. The policy of controlling prices combined with chronic and uncertain inflation rate created by the governments in the region have made the rationing of credit among borrowers inevitable. A major harm that these policies can cause is the reduction in the capacity of financial industry to provide savings for investments. This ultimately reduces productivity and economic growth.
2. Borrowers denied credits and savers subject to very low or negative real rate of return in the organized market may come together in the curb markets where interest rates are excessively high. The savers may even accumulate financial assets abroad through capital flight despite the existence of severe foreign exchange controls. Investors, on the other hand, may find the very expensive and short-term foreign credits an unavoidable substitute for domestic funds. All of these reduce economic growth and make the level of income lower than what it could be if there was less manipulation of financial prices and a more appropriate monetization policy.
3. Financial repression prevents the use of interest rate to discriminate between investment alternatives. It eliminates the chance for creating of a financial structure that would welcome the appearance of new investment firms and innovative investment projects. Shallow finance reduces the number of competing proposals for the disposition of savings. In this respect, the contrast with liberalized financial markets can be remarkable. In liberalized financial markets, savings flow through many channels that are subject to the scrutiny and discipline of relative price, into the innovative and profitable projects that will add to economic growth and lead to higher levels of income.
4. A high rate of unemployment in the Middle Eastern countries is partly caused by financial repression. Distorted interest rates make less capital to be available to some industries while a lot of it would be supplied to the repetitive projects of established firms, governmental enterprises, and traditional trading firms. This problem is exacerbated when low real rates of interest that reduce savings combine with relatively high minimum-wage rates to cause that labour and capital are combined in wrong proportions. Savings flow to capital-intensive production even though labour is plentiful and capital is scarce in these countries.
5. Distribution of income becomes more and more unequal as the governments in the Middle East reduce relative prices for domestically produced food and primary products. Raw materials are made cheap for centrally located and capital-intensive industries. These industries do also benefit from credits at low rates and cheap imports. Imports of primary products gain priority for foreign exchange and become cheaper substitutes for domestically produced products. A very small portion of relatively high skilled labour gains employment at capital-intensive industries which are generally supported by low rates of interest, inexpensive prices for domestic inputs, and preferential or low rate of foreign exchange. The high minimum wage for industrial workers, the amenities in the cities and the push factors in the countryside draw rural workers into unemployment and into the slum areas around the cities. The results of these policies will be again a slower economic growth and greater inequality in the distribution of income. Government budget deficit will grow as a result of devoting more funds to welfare and security programs.

6. The repressed financial systems in the Middle East cause a slowdown in the development of long-term direct finance apparatus in the region. Stock Exchanges may exist, but they trade in few issues of a handful of Government Corporations or predominantly foreign owned trading corporations. The domestic value of physical assets is too little for creating diversified portfolios. The attraction of investing in the bonds, stocks, and other securities abroad are too strong compared to the costs and risks in a domestic security exchange. The long perspectives of investors and savers that are necessary conditions for establishing and the smooth functioning of security exchanges are too unclear because of uncertainties about inflation rate or public policies regarding foreign trade and taxes. In summary the repressive financial systems slow down economic growth and the accumulation of physical capital and postpones the creation of a complex system of law, accounting, and sophisticated facilities of trading that are the necessary conditions for the development of stock exchanges.
7. Oil industry in many of these countries provides a sizable amount of foreign exchange. This causes that the monetary authorities would not see any inappropriateness in setting low or negative real deposit rates and overvalued exchange rates. The governments create high and variable rates of inflation when petrodollars become a big portion of their budget and they use them to pay for huge subsidies to their supporters or spend the petrodollars on armament, infrastructure, and importation of machinery, equipment and primary products. The negative or low real deposit rates and overvalued exchange rates facilitate access of domestic investors to foreign savings: domestic savings and petrodollars are exported in capital flight.

In summary, the centralization of government combined with shallow finance has made the economic growth in the Middle Eastern countries very slow while it has worsened the inequality in the distribution of income as evidenced by the recent uprising of unemployed and poverty stricken sub-groups of people in these societies. A higher rate of economic growth is a necessary condition for improvement in the living standards in these countries. The improvement in standards of living and enjoyment of greater leisure, in their turn, are necessary for public attitudes and political institutions to evolve in manners that improve the moral character of these societies and make democracy a viable form of organizing the political system.

The autocratic form of government in the region is associated with an entrenched civil service that does not embrace new ideas and has been reluctant to step aside for market forces. As Shaw (1973, p.15) explains "Groups that benefit from monopoly rents of import licenses, credit and investment permits, tax concessions and cheap supplies of goods and services from government enterprise, urban concentration around subsidized industrial enclaves, and shifts in terms of trade against domestic agriculture have a stake in excess-demand regime." In these societies, the excess demands in different markets can be cleared by using shallow finance. Shallow or repressive finance is, in its turn, responsible for the slow down in the economic growth and improvement living conditions of people that can ultimately bring up changes in public attitudes and lead to emergence of more sophisticated political systems. The bottom line is that the Shallow finance and centralized governments in the Middle Eastern countries act like a vicious circle of political and economic backwardness.

What is to be done?

The ineffectiveness of the revolution in Iran, the Arab Spring, and the invasions of some Muslim countries by the US and its allies in democratization of governments in the Middle East is a clear indication that reactionary forces in the region cannot be deactivated by using coercive actions. This failure reveals that foreign invasions and political pressures from abroad and from within these societies cannot break down the vicious circle of political and economic backwardness discussed in this paper. If autocracy cannot be replaced with democratic form of government through coercive measures then, the shallow finance that facilitates the existence of autocratic regimes and enforces the hegemony of the entrenched civil service and clergies over the society should be terminated. The U.S. and other industrialized nations should avoid the useless wars and their antagonistic actions against the tyrannical regimes of this strategically important part of the world. The success in bringing the renegade and autocratic governments of the Middle East into the family of peace-loving nations depends on acceleration of economic growth and greater equality in the distribution of income in these countries.

The hegemonic form of governments in the Middle East cannot last for long if individuals in these countries especially the young people would experience steady increases in their incomes so that they would not

need to spend their entire time to work for subsistence living standards. If this happens, the individuals will be left with some spare time for engaging in the activities that enhance their consciousness, personal responsibility, and individual freedom. Only in that state of well-being and mental comfort will they not take authority for granted and will long for freedom and ask for their the rights for political participation. As the experience with China has shown, making peace with the tyrannical governments, interaction with them through trade, and invest in their economies can break down the vicious circle of socio-economic backwardness explained in this paper. This is a less costly method and a much better way of bringing the countries of Greater Middle East into the family of responsible nations.

CONCLUSION

The purpose of this paper is to show that the Middle Eastern countries are generally faced with two interdependent barriers to socio-economic development. These barriers that get hardened by enforcing each other have made it so difficult for these nations to place themselves on the path to democracy, modernity, and economic prosperity. The first of these two barriers is the existence of autocratic governments in the region that are supported by petro-dollars, backed by conservative clerics, and afflicted with corruption at all levels of decision making process. The second barrier to socioeconomic development is the existence of shallow finance in these societies. In simple terms, the financial systems in these countries are not deep enough to lead to appropriate investments and efficient allocation of capital among different industries. The depressing of finance by governments of these countries will also make it difficult for business organizations to reduce or transfer their risks to other parties who are more capable of bearing such risks. This work will also investigate the underlying causes of these two barriers to economic development and explains why the leading industrialized nations have not succeeded in bringing the ancient nations of the Middle East which are so generously endowed with natural resources and are located in a strategically important part of the world to the family of modernized and economically prosperous nations. This study leads to the conclusion that the establishment of democracy and complete adoption of free-market system of organizing economic activities should come from within these societies and not from without. It is only when people in these traditional societies enjoy a higher standard of living and are ready to embrace modernity and democracy that these two great achievements of human societies will be adopted throughout the region.

REFERENCES

- Cecchetti, S. and K. Schoenholtz, (2011). *Money, Banking, and Financial Markets*: New York, McGraw-Hill Irwin.
- Collier, P. and C. Mayer, (1989) "The Assessment of Financial Liberalization, Financial Systems, and Economic Growth", *Oxford Review of Economic Policy*, Vol. 5, No. 4.
- Friedman, B. (2005). *The Moral Consequences of Economic Growth*, New York: Alfred A. Knopf Publishing.
- Gibbon, E., (1977). *The Decline and Fall of the Roman Empire*, 1845. Reprint. (New York: Modern Library).
- Issawi, C. (1982). *An Economic History of the Middle East And North Africa*, New York: Columbia University Press.
- Hunt, E. (1995). *Property and Prophets: The evolution of Economic Institutions and Ideologies*, New York: HarperCollins College Publishers.
- Lasch, C. (1991). *The True and Only Heaven: Progress and Its Critics*, New York: Norton.
- Lawrence E. and R. Z Lawrence. (2013). *Rising Tide, Is Growth in Emerging Economies Good for the United States?* Washington, DC: Peterson Institute.
- McKinnon, R. (1986). "*Financial Liberalization in Retrospect: Interest Rate Policies in LDCs*," Center for Economic Policy Research Publication (Stanford University), No. 74.

- Meier, G. (1995). *Leading Issues in Economic Development*, New York: Oxford University Press.
- Muller, J. (1993). *Adam Smith in His Time and Ours: Designing the Decent Society*, New York: Free Press.
- Reiss, J. (2013). *Philosophy of Economics*, New York: Routledge.
- Rothschild, E. (2001). *Economic Sentiments: Adam Smith, Condorcet, and the Enlightenment*, Cambridge: Harvard University Press.
- Shaw, E. (1973). *Financial Deepening in Economic Development*, New York: Oxford University Press.
- Wolff, E. (1997). *Economics of Poverty, Inequality, and Discrimination*, Cincinnati: South-Western College

TECHNOLOGY IDENTIFICATION AND ETHICAL PERFORMANCE MANAGEMENT: REMOLDING LOCAL GOVERNMENT SERVICE DELIVERY THROUGH E-GOVMONET TECHNOLOGY

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ABSTRACT

Although South Africa is evidently bedeviled with the poorest of service delivery, there is still some kind of hope about which this situation can be rescued. Despite the lack of implementation of recommendations on non-service delivery going on, SA has gone as far as dismally failing for uncountable occasions to ensure responsiveness to communities' basic needs. This study argues that e-GovMoNet can reconstitute and restore SA's best image within the global local governments by implementing its connectivity to other governments. With this articulation, it is hoped she can accomplish this milestone by showing the importance of this technology through print literature reviews. It does this by describing this technology based on its artificial intelligence and code of conduct within the e-practice milieu. To best address this conundrum and thus strongly arguing for the implementation of e-GovMoNet, this paper shows reasons why this technology is imperative in SA and should thence be allowed. Upon the given discovery, the researcher fills strongly innate for its implementation.

INTRODUCTION

While much is made of the need for business to be reliably and effectively connected to ICT systems in order to fulfill its purposes, certainly not the same level of attention is focused on the public sector in SA local government context. However, SA government, with its mandate to manage and deliver various services to millions of the people (the Constitution of RSA, 1996), has just as pronounced a need (Brown and Dekker, 2003; W3schools, 2010). That is something of which this paper is acutely aware (White Paper on Local Government 1998; Bearing Point, 2007). Consequently, the local government should draw from its range of connectivity solutions and services; proven in the most demanding of business environments, to deliver for its public sector clients, but in the end still fails to deliver. It may be argued that this is as a result of promotion of conflict of interest experienced for so long in SA by senior officials leading to poor service delivery. What might be a solution to this failure to deliver anyway? This paper therefore argues for the implementation of the e-GovMoNet. This argument will be illuminated through the reviews of literature in a more pragmatic manner so as to describe e-GovMoNet and to explain how this technology can best solve the problem of corruption and that of poor service delivery in SA local government concurrently, as a whole.

THEORETICAL UNDERPINNINGS

This paper looks into how efficient service delivery through e-government may be achieved. Arguably, this achievement can only be accomplished by, according to prevailing SA circumstances, e-GovMoNet. This literature focuses essentially on the reviews of the aftermaths of not implementing the e-GovMoNet and the rules of conduct by local government management. The research question is therefore why the local government should still persist on the old system of governance while proven so inefficient.

What is e-GovMoNet Technology?

First of all it is desirable to define the e-GovMoNet. According to Dirane and Lehobye (2011) concurring with Ari-Veikko Anttiroiko and Mälkiä, (2009), the term ‘e-GovMoNet’ (electronic government) refers to the use by government agencies of Information and Communication Technologies (ICT) that have the ability to transform relations with citizens, businesses, and other arms of government as another form of government business network (Kroes, 2010). The ICT system that this paper focuses on is thus e-GovMoNet, short for electronic government monitor network. It is about using the tools and systems made possible by ICT to provide better public services to citizens and businesses (W3schools, 2010). Every local government member becomes a watch-dog on another within the network by constant monitoring and reporting as a means of providing the feedback. ICT systems are already widely used by government bodies, just as in enterprises (Rankhumise and Rugimbana, 2010), but e-Government involves much more than just the tools. Effective e-Government also involves remolding organizations and processes, and changing behavior so that public services are delivered more efficiently to the people who need them most. Implemented well, e-GovMoNet enables all citizens, enterprises and organizations to carry out their business with government more easily, more quickly and at lower cost (Angeles et al., 2001). In this paper, attention is therefore drawn on e-GovMoNet as e-government ICT tool and yard-stick that the SA government should adopt in order to monitor and measure the bases for poor service delivery, and thus, of corruption (Thorpe, 2009). E-GovMoNet may also be used to counter all forms of mal-administrations committed by any member of municipality, at local government, including national levels. More than just that, if one looks at the local government level, the municipalities are permitted to apply for spectrum and licensing to self-provide (Gartner Group, 2000). That is a valuable opportunity for municipalities to deliver a whole new layer of services to the residents who fail within their sphere (Kroes, 2010). As we know, SA government is divided into three spheres: national, provincial and local (Koh and Prybutok, 2003). Across all three of these spheres, government has as its challenge the administration, management and the execution of service delivery to meet the needs of the people (Urdiales et al., 2009). This is what this paper means by the term ‘corruption’. It is precisely owing to these realities that this paper is able to provide meaningful solutions (Olivier, 2009).

Kew concepts here are communication and collaboration, and in particular, are terms emerging as the tools that allow for more effective governance. Whether it is policing, home affairs, health or any one of the many other government departments, communication and collaboration are essential to co-ordinate and execute against service delivery mandate (the Constitution of RSA, 1996; Shailendra and Sushil, 2007). Furthermore, Chapter 6 of the Local Government: Municipal Systems Act (Act 32 of 2000) determines the importance of measuring performance. It can thus be argued therefore that this paper is also against this background thence this study was conducted in order to evaluate progress made to date in implementing performance management systems in the study area and also drew lessons for improving performance in local governments (Indiatimes, 2009). Other than with other numerous researches that have this far been conducted on this subject, this particular study was conducted to essentially provide a solution to the problem of poor service delivery, and thus, corruption, in SA through the implementation of e-GovMoNet (Nixon and Rawal, 2010). Having described e-GovMoNet, how would it fit within the SA context?

South African Situation and Artificial Intelligence (AI)

E-GovMoNet should be implemented and if not, then the motive of not implementing should be made very clear through processes of accountability and checks and balances in order to understand the mission and focus of individual government departments (the Constitution of RSA, 1996). But once the e-GovMoNet is implemented, it would then be easier to examine where and how it can add value (Kaylor et al., 2001), for example, pointing to prison department, we look at the points plan that government has mooted from the improvement of the national prison system. Executing on that plan requires resources and capabilities with which e-GovMoNet can help (West, 2008a). While it is not necessary to delve into that plan *per se*, the point here being that as it does with its private sector clients, e-GovMoNet makes a point of understanding strategic requirements (Newcomer, 2007). That, in turn, allows the government to draw from its capabilities to deliver value. We also look at government from a cluster perspective. For example, the justice cluster cuts across several departments as it executes its mission of serving justice: there is the police, the judiciary, the correctional services, and the social services. These organizations must work together (Agarwal and Ventaka Ramana, 2007). By understanding the processes that run through these organizations, the tough point and the information exchanges (United Nations Department

of Economic and Social Affairs, 2010), e-GovMoNet can provide solutions that eliminate duplication of effort and spend to achieve more value from the limited resources available (Kushchu and Kuscu, 2003). This means that this technology, arguably fits well within the SA context and it is absolutely, perhaps even urgently, needed. Given the SA context, how then will the SA government know they are to implement the right technology, in case they really do?

Regarding AI, the e-GovMoNet goes a way far beyond connectivity and extends into artificial intelligence from information. Connecting and exchanging information in the justice provision field means holding cells and prisons need not act independently of one another (Lehobye, et al., 2011; Mokgele, 2012). An inmate may move around; why, if they are in Pretoria one week and in the Western Cape the next, should the prison warder or any other person seeing them not have access to their full prison history (Poslad, 2009)? E-GovMoNet, not only facilitates better treatment, but it also eliminates the potential for abuse of the system such as for example, receiving more medications than necessary (Mitchell, 2009; Maswanganyi, 2010). That in itself indicates the importance of e-GovMoNet, and thus, Artificial Intelligence (AI). AI is that very capability harnessed from technology that makes human lives easier. While services that e-GovMoNet provides are technocentric and built on the premise of using available technology and resources to maximum benefit that is just one aspect of the value it creates, AI becomes even more imperative. Voice over Internet Protocol, Internet access, unified communications, cloud computing – are all necessities of technologies and connectivity, and thus IA through e-GovMoNet (West, 2008b). But creating value from this technology depends on having some vision, some insight and thus, AI (Vignarajah, 2010). The understanding of business requirements and how these translate into technology needs is an effective way of creating an immediate value while driving sustainable long-term benefits (Mokgele, 2012). Information and the funding programmes supporting initiatives to improve public services in the field of e-Government on European Union (EU) policies is available online accessible from Society thematic portal at http://ec.europa.eu/information_society/soccul/egov/index_en.htm. But again, what would then be the aftermaths in case there are some failures in implementation?

Failure to Implement

While the hurdles facing e-Government are great, the consequences that would follow from failure to implement e-GovMoNet in particular are vastly more severe (Accenture, 2006). Given the SA context, some of the consequences that flow from not having e-GovMoNet may include: (1) continued increase in the transaction cost of government services; (2) the inability of the government to react in a timely fashion and increasingly swifter-moving world; (3) the government's diminished capacity to provide basic public services to the population; (4) access to government only for the wealthy; and (5) the relative decline of the United States in the face of the globalization of political and economic activity (Fenwick, et al., 2009). However, according to a new global research report by Accenture (Accenture, 2006) and hence, e-GovMoNet, governments that lead the public sector in customer service are focused on developing sophisticated, interactive and transactional capabilities on par with the best of the private sector (Coonan, 2006). In the report, Accenture finds a new trend whereby governments are reinventing their customer service delivery programs (Martin et al., 2010) in order to help build greater trust—and this is redefining the relationship between citizens and their governments...’ (Agarwal and Ventaka Ramana, 2007).

E-GovMoNet and the E-Practice

This section provides a brief statistical scenario within e-practice. For economic activity to be sustained over-time, government, in one way or another must provide the context that enables market transactions and precludes destructive abuses. The power of e-GovMoNet, rapid communication, and the conversion of wealth from ownership of physical property to intangible property (Lehobye, 2010) means governance must be different. Probably the current biggest threat to e-governance is the change in the speed of market transactions over a while. Fifty years down the line, legal and illegal transactions involving tangible property were slowed, and sometimes made impossible, by the time, effort, and costs necessary to consummate them (Post and Johnson, 1996). In the late 1960s and early 1970s, a record trading day on the Johannesburg Stock Exchange was defined as 31 million shares. By comparison, the average trading volume in January 2009 was 5,370 million shares per day, or 173 times greater than a record day in the early 1970s, and this would be 90 percent worse compared to

other countries (Benefits Report, 2009; UN Report, 2009; United Nations Department of Economic and Social Affairs, 2010).

Given the brief scenario above, it should now be seen that the e-GovMoNet proves perfectly imperative. The e-Practice.eu portal can also help put all these statistics to an end. The e-practice may be accessed from e-Practice.eu portal hosts, an array of exciting communities which gather members with common interests, offering messaging, blogging, calendar and document sharing tools as well as networking opportunities and SA should not be an exception (Nixon and Rawal, 2010; Vignarajah, 2010). This is available online from <<http://www.epractice.eu>>. This portal also functions more or less the same as e-mail messaging system. Communities are open and help e-Practice.eu users to connect even better with other e-government peers to share knowledge and news and most importantly, to monitor one another (Atkinson and Castro, 2008). This will also be an incentive to and help rural connectivity in order to benefit from the use of e-government within the SA rural territories (Atkinson and Castro, 2008). Any e-Practice.eu registered member government can start a community or voluntarily join one (Center for Democracy and Technology, 2009). However, all communities have their specific guidelines, the information of which is available and retrieved online in February 25, 2011 from <http://www.epractice.eu/sites/default/files/import/community_documents/Rules_of_Conduct.pdf/>. It is now imperative to now examine the rules of conduct as guidance on e-government practitioners by virtue of their e-GovMoNet membership.

Rules of Conduct

As a rule of thumb and further than just e-Practice, a friendly and pleasant atmosphere with the community should be maintained. In order to accomplish this, the municipalities should have a portal which should also implement some basic rules of conduct such as Batho Pele initiative, which may be updated from time to time without previous notice. All visitors who participate and use the communities and site facilities would be expected to read and agree with these rules and policies and not to break any of them. Batho Pele, literally meaning 'people first', and is an SA government initiative that prioritizes the people to make sure that quality service is rendered (Urdiales et al., 2009). This has never being put into praction but was only a theoretical word of mouth. For the SA local government portal to be community-efficient through e-GovMoNet, if connected, the following five aspects would have to be kept abreast (Gartner Group, 2000).

Inappropriate Content

The following to be kept abreast are deemed to constitute inappropriate content and are against the community-efficient viability on the e-GovMoNet (Singel, 2007). Posting such content to e-GovMoNet may result in account suspension or banning as well as the removal of the offending posts:

- Posts or images of a defamatory, abusive, vulgar, hateful, harassing, obscene, profane or threatening nature. This includes any messages or material ethnically, racially, religiously or sexually offensive, insulting or demeaning;
- Posts or images that violate any laws or regulations;
- Explicit advertising of products or services without the municipality's prior consent or the adequate context (i.e. in the case of a thread discussing Tools & Technology). Advertising your company can be done through your Personal Profile;
- Registering to solely post/endorse/promote for one's own personal gain;
- Discussion of illegal activities such as software and movie piracy and other intellectual property infringement (Lehobye, 2010);
- Posting one's or other people's personal contact information (i.e. telephone numbers, addresses etc) on any publicly viewable forums.
- Anything else deemed inappropriate by the local government; and
- Links to any of the above.

Expected Behaviour of Members and Suggestions for Better Posting

- Keep all contributions within the appropriate community area of interest;

- Use short, concise titles. When posting documents or blog entries, it is a good idea to use a short yet informative title, so it is not too long and other community members know what your message is about;
- Please make an effort to communicate oneself as clearly as possible;
- Community members are welcome to post messages and announcements in any of the portal's official languages (see language policy of SA public service);
- Refrain from using foul or offensive language (Becker, 2009);
- All content posted by users express the views of the author, and ePractice.eu will not be held responsible for any message;
- Treat all other community members in a respectful and courteous manner at all times, even in the event of disagreements;
- Visitors to the site who are not recognised Administrators, portal Staff Members or Community Facilitators with full credentials should not pose as the aforementioned ranks through the use of 'administrator', 'staff member' or "facilitator" in their Member's name, avatar or e-signature (Chiger, 2002); and
- While these rules cover most common situations, they cannot anticipate everything. Consequently, they reserve the right to take any actions they deem appropriate to ensure these forums are not disrupted or abused in any way (Scherer, 2005).

The above quote of conduct can certainly have such a positive impact on SA scheme of reference to the attitudes in respect of communities and performance management within the e-government. The right to close or ban, temporarily or permanently, any user's account without previous notice as we deem necessary is reserved. Should anyone feel to have been treated unfairly by e-GovMoNet facilitators or a community facilitator, one may appeal directly to e-GovMoNet facilitators. When contacting, please provide the e-mail address one used to sign up. The suspension of portal members is not discussed with the general public.

METHODOLOGY AND SUGGESTED SOLUTIONS

SA Local Government should be involved in the use and analysis of e-Government to achieve the said objective and recommendations through the implementation of e-GovMoNet (OECD, 2003). This idea is backed by the European Observatories Network having evolved to e-GovMoNet (Kushchu and Kuscu, 2003). Since the local government counsel-provide, the e-GovMoNet should partner with them (local government) to allow them to effectively deliver connectivity as a service to their residents. This paper strongly believes therefore that EU's e-GovMoNet is able to assist in creating solutions that optimize available spectrum, while delivering the billing and management systems to ensure that viable service is created and maintained, and should thus, be implemented. The EU community is stronger today and with this kind of transformation they focused their efforts on solid and clear objective grounds (Satyanarayana, 2004). It can now be seen that it is indeed more about using these tools and systems which have been made possible to provide better public services to citizens and businesses (Sinrod, 2004). If e-GovMoNet can be implemented, this would prove to be a long-term solution to SA poor service delivery problem and its concomitant corruption (Schrier, 2008). One may even be tempted here to indicated that lip-service strategy of top government officials as a whole has no room anymore for corrupt practices they used to persue at the expense of tax-payers' money. Given its performance's situational circumstances, what would SA really still be waiting for if not just going for e-GovMoNet at one stride (Public CIO, 2006)?

Regarding methodology adopted, this was a qualitative paper having adopted a descriptivist research method. Through this method, the paper described through discussions and reviews scholarly contributions, e-government as it is applied in Europe and other such countries. In order to ultimately correct this situation on service delivery once and for all, this paper argued for the implementation of e-government and came up with reasons why this approach would best address this conundrum (Olivier, 2009). The main objective of this paper was to restore SA's best image within the global local governments by implementing its connectivity to other governments through the e-GovMoNet. That objective was accomplished by showing the importance of this technology through organized literature review. It did this by describing e-GovMoNet technology based on artificial intelligence and code of good conduct within the e-practice environment. It also indicated the pervasiveness of e-GovMoNet based on its artificial intelligence. This paper showed reasons why e-GovmoNet technology is imperative in SA and thence, why it should be allowed. For the e-government online communities, this paper also provided rules of conduct as guidance on local government practitioners (people and performance

management) within e-practice environment and as a technological measure to help put an end to poor service delivery and corruption in SA (Centre for Democracy & Technology, 2009). It also went on to clarify the concern that the adoption of e-government by SA to curb the ongoing failures of service delivery and corruption by its local governments as an absolute necessity. This paper, unlike many others on SA poor service delivery deliberations, as stated earlier on (Magubane and Khalo, 2010); put the record straight without dilly-dallying. In order to arrive at this point head-on, perhaps by hitting the nail on the head.

CONCLUSION

In order for SA to remould and restructure its service delivery and eradicate corruption to be efficient and forget about the lip-service and self-enrichment through existing corruption (Cordella, 2007), measures have been suggested as a point of departure to this eventuality (Center for Democracy and Technology, 2009). Batho Pele initiative is a better basis through which e-GovMoNet can be implemented and used as a lens to monitor even corrupt government activities (Chiger, 2002; Schrier, 2008). It was shown to be another means and the yardstick to have SA government monitored by peer governments online to account and ensure checks and balances for the benefit of the people on the grassroots (Deloitte Research – Public Sector Institute, 2000; Gartner Group, 2000). Based on the concern that the adoption of e-government by SA to curb the ongoing failures of service deliveries by its local governments being an absolute necessity; should now be seen to be an obvious reality (Kroes, 2010). This reality has been arrived at by defining and providing rules of conduct as guidance on people management on e-practice for the e-government online communities (Bearing Point, 2007). But finally in this way, the Local Government: Municipal Systems Act 32 of 2000 and Local Government: Municipal Structures Act 117 of 1998, Local Government: Municipal Finance Management Act 56 of 2003 including the Municipal Planning and Performance Management Regulations, R 796 of 24 August 2001 will not be infringed. If this be the case therefore, the necessity of the adoption of e-GovMoNet would indeed be an absolute necessity to curb the ongoing failures of service deliveries and corruption by SA local governments and for managing the people inclined with these responsibilities (OECD, 2003; European Commission's E-Government, 2010). Most important than anything else, remolding local government service delivery and corruption through e-GovMoNet, will for the masses of SA, be the milestone achievement of all times.

REFERENCES

- Agarwal, A. & Ventaka Ramana, V. (2007). Foundations of e-Government. Edited by *ICEG'07 5th International Conference on e-Governance*. <<http://www.iceg.net/2007/books/book1.html/>>. [Retrieved February 12, 2011]
- Angeles, R., Corritore, C., Choton, S. & Nath, R. (2001). Success Factors for Domestic and International Electronic Data Interchange (EDI) Implementation for US firms. *Information & Management*, Vol. 21, pp. 329-47.
- Ari-Veikko Anttiroiko & Mälkiä, M. (2009). Encyclopedia of Digital Government. Edited by Idea Group Reference. <http://www.idea-group/reference/details.asp?ID=5066>. [Retrieved March 05, 2011]
- Atkinson, R. D. & Castro, D. (2008). Digital Quality of Life. *The Information Technology and Innovation Foundation*. pp. 137–145. <<http://www.itif.org/files/DQOL-14.pdf>>. [Retrieved March 05, 2011]
- Accenture, (2006). Governments That Deliver Outstanding Customer Service Provide an Experience That Rivals the Private Sector. Accenture, Toronto, May 2006. <http://www.accenture.com/Contries/Canada/About_Accenture/Newsroom/GovernmentReportFinds.htm/> [Retrieved March 14, 2011]
- Bearing Point. (2007). Study Finds Federal Gains in E-Government and Citizen Services; Challenges Remain. *Bearing Point*. 2007-04-26. <<http://www.bearingpoint.com/portal/site/bearingpoint/menuitem.2e8a344a60e7e4fc53d0a110c54041a0/?vgnnextoid=4bc7c0c315a22110VgnVCM100000de03620aRCRD&vgnnextchannel=b3db3c0bc28fe010VgnVCM1000003264a8c0RCRD>>. [Retrieved February 12, 2011]

Becker, S. A. (2009). PhD. Bridging Literacy, Language, and Cultural Divides to Promote Universal Usability of E-Government Websites. *Northern Arizona University*. <[http://www.igi-pub.com/files/prefaces/jeco%20preface%201\(3\).pdf](http://www.igi-pub.com/files/prefaces/jeco%20preface%201(3).pdf)>. [Retrieved December 20, 2010]

Benefits Report (2009). Report to Congress on the Benefits of the President's E-Government Initiatives. Business Gateway, p. 50). <http://www.whitehouse.gov/omb/assets/egov_docs/FY09_Benefits_Report.pdf>. Retrieved 2009-02-28>. [Retrieved March 05, 2011]

Brown, M. M. & Dekker, M. (2003). Electronic Government. Rabin, J. (Ed.). *Encyclopedia of Public Administration and Public Policy*, pp. 427-432.

Center for Democracy & Technology. (2009). Transparency. Center for Democracy & Technology. <<http://www.cdt.org/egov/handbook/transparency.shtml>>. [Retrieved January 02, 2011]

Chiger, S. (2002). Has Terrorism Curtailed E-Government? *Medill News Service*. 2002-09-11 <<http://pcworld.about.com/news/Sep112002id104796.htm>>. [Retrieved March 05, 2011]

Cordella, A. (2007), E-Government: towards the E-Bureaucratic form? *Journal of Information Technology*, 22, 265–274. <<http://www.palgrave-journals.com/jit/journal/v22/n3/abs/2000105a.html/>>. [Retrieved December 20, 2010]

Deloitte Research – Public Sector Institute. (2000). At the Dawn of E-Government: The Citizen as Customer. <<http://www.egov.vic.gov.au/pdfs/e-government.pdf/>>. [Retrieved March 05, 2011]

Dirane J. S. & Lehobye, N. M. (2011). Rethinking and Restructuring Efficient Service Delivery Through E-Government: a Perspective on Technology Identification as Performance Management within the South African Local Government. *5th IBC Proceedings*, Mauritius, September, 26-30, 2011.

Economist. (2008). The Pros and Cons of E-Government. *Economist*. 2008-02-14. <http://www.economist.com/surveys/displaystory.cfm?STORY_ID=10638105>. [Retrieved December 20, 2010]

European Commission's E-Government (2010). ICT for Government and Public Services <http://ec.europa.eu/information_society/activities/e-Government/index_en.htm>. [Retrieved March 11, 2011]

Fenwick, W. A., John, E. E. & Stimac, J. A. (2009). The Necessity of E-Government, *Santa Clara Computer & High Tech. Law Journal*, Vol. 25, p. 428-465.

Gartner Group, (2000). Key Issues in E-Government Strategy and Management. *Research Notes, Key Issues*, 23 May 2000.

Indiatimes (2009). Obama's E-Government Off to Good Start <start/articleshow/4453532.cms>. *Economictimes.com*. 2009-04-27. <<http://economictimes.indiatimes.com/news/politics/nation/Obamas-e-government-off-to-good-start/articleshow/4453532.cms>>. [Retrieved March 05, 2011]

Kaylor, C., Deshazo, R. & Van Eck, D. (2001). The Essence of E-Governance is the Enhanced Value for Stakeholders through Transformation Gauging E-Government: a Report on Implementing Services among American Cities. *Government Information Quarterly*, 18 (2001), 293–307. <[http://dx.doi.org/10.1016/S0740-624X\(01\)00089-2](http://dx.doi.org/10.1016/S0740-624X(01)00089-2)>. [Retrieved February 28, 2011]

Koh, C. E. & Prybutok, V. R. (2003). The Three-ring Model and Development of an Instrument for Measuring Dimensions of E-Government Functions. *Journal of Computer Information Systems*, Vol. 33 No.3, pp.34-9.

Kroes, N. (2010). Lift-Off towards Open Government. Vice-President of the European Commission Responsible for the Digital Agenda: My Vision for E-Government, and How to make it real. *Conference held in Brussels*, 15 December 2010. <<http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10752&FORMAT=html&aged=0&language=EN&guiLanguage=en>>. [Retrieved March 07, 2011]

Kushchu, I. & Kusu M. H. (2003). From E-Government to M-Government: Facing the Inevitable. *The 3rd European Conference on e-Government*. pp. 253- 260.
<<http://topics.developmentgateway.org/egovernment/rc/filedownload.do~itemId=396584>>. [Retrieved October 02, 2010]

Lehobye, N. M. (2010). Plagiarism: Misconduct Awareness on Novice Research within the Cyberworld. *Potchefstroom Electronic Law Journal*, vol. 13, no. 3, pp. 494-508.
<http://www.puk.ac.za/opencms/export/PUK/html/fakulteite/regte/per/index1.html> . [Retrieved January 10, 2011]

Lehobye, N. M., Dirane, J. S. & Motsetse, I. T. (2011). Innovation, Monitoring and Evaluation: a TUT Network Governance, a Myth Practicality. In *Conference Proceedings of the Journal for South African Association of Public Administration and Management*.

Local Government: Municipal Finance Management Act 56 of 2003. *Government Printers*, South Africa.

Local Government: Municipal Structures Act 117 of 1998. *Government Printers*, South Africa.

Magubane, V. & Khalo, T. (2010). Analysis of the Implementation of Performance Management System in the Umtshezi Local Municipality in South Africa. Global Business and Technology Association. In: *GBATA Proceedings, Kruger National Park, South Africa*.

McWilliams, A, Siegel, D. & Wright, P (2006). Corporate Social Responsibility: Strategic Implications. *Journal of Management Studies*, pp. 43:1.

Maswanganyi, J. (2010). The Protection of Electronic Information at the Workplace, within the South African Context: Legal and Ethical Challenges. Global Business and Technology Association. In: *GBATA Proceedings, Kruger National Park, South Africa*.

Martin, D., Paolucci, M., McIlraith M., Burstein, M., McDermott, D., McGuinness, D., Parsia, B., Payne, T. Sabou, M., Solanki, M., Srinivasan, N. & Katia Sycara. (2010). Bringing Semantics to Web Services: The OWL-S Approach. Global Business and Technology Association. In: *GBATA Proceedings, Kruger National Park, South Africa*.

Mokgele, J. R. (2012). *Using Enterprise Architecture to drive e-Governance for Service Delivery Enhancement: a Case of SA Local Government*. Working Proposal for Masters Degree in Business Information Systems. Tshwane University of Technology, Republic of South Africa.

Municipal Planning and Performance Management Regulations, R 796 of 24 August 2001. *Government Printers*, South Africa.

Nixon, P. G. & Rawal, R. (2010). Enabling Democracy? E-Government, Inclusion and Citizenship. *The Hague University*. pp. 281–290. <<http://books.google.com/?id=eC60D0q7m0AC&pg=PA281&dq=cons+of+e-government>>. [Retrieved February 12, 2011]

OECD, (2003). The E-Government Imperative: Main Findings. *Policy Brief, Public Affairs Division, Public Affairs and Communications Directorate, OECD*. <<http://www.oecd.org/dataoecd/60/60/2502539.pdf>>. [Retrieved October 25, 2010]

Olivier, M. S. (2009). *Information Technology Research: a Practical Guide for Computer Science and Informatics 3ed Ed*. Van Schaik Publishers.

Public CIO, (2006). Government Technology's Public CIO Thought Leadership Profile 'Expanding E-Government, Every Day' open-access online paper 2006 <http://www.nicusa.com/pdf/EGOV_PublicCIO-Aug06.pdf>. [Retrieved October 18, 2010]

Rankhumise, E. M. & Rugimbana, R. O. (2010). Micro Enterprise Owner Perspectives on Performance: Insights from Selected Municipalities in Mpumalanga Province, South Africa. *Africa Journal of Business Management*, Vol. 4(16), pp. 3500-3507.

Satyanarayana, J. (2004). *E-Government: The Science of the Possible*. India: Prentice Hall.

Scherer, R. (2005). New York to fight terrorism with more street-corner cameras. *Christian Science Monitor*. <<http://proxy.cityu.edu/login?url=http://proquest.umi.com.proxy.cityu.edu/pqdweb?did=1872874431&sid=13&Fmt=3&clientId=8931&RQT=309&VName=PQD>>. [Retrieved October 02, 2010]

Schrier, B. (2008). How Web 2.0 Will Transform Local Government. *Digital Communities*. <<http://www.govtech.com/dc/articles/417520>. Retrieved 2008-03-01>. [Retrieved February 12, 2011]

Shailendra, C. J. P. & Sushil, S. S. (2007). E-Government and E-Governance: Definitions/Domain Framework and Status around the World (PDF). ICEG. <http://www.iceg.net/2007/books/1/1_369.pdf>. [Retrieved December 20, 2010]

Singel, R. (2007). Analysis: New Law Gives Government Six Months to Turn Internet and Phone Systems into Permanent Spying Architecture". *Wired Magazine*, 2007-08-06. <<http://blog.wired.com/27bstroke6/2007/08/analysis-new-la.html>>. [Retrieved October 02, 2010]

Sinrod, E. J. (2004). A look at the Pros and Cons of E-Government. *USA Today*. <http://www.usatoday.com/tech/columnist/ericjsinrod/2004-06-30-sinrod_x.htm>. [Retrieved October 30, 2010]

The Constitution of the Republic of South Africa of 1996. *Government Printers*, South Africa.

Thorpe, S. (2009). Facilitating effective online participation in E-government. *E-government in New Zealand*. <<http://www.e.govt.nz/resources/research/progress/transformation/chapter13.html>>. [Retrieved December 20, 2010]

United Nations Department of Economic and Social Affairs, (2010). United Nations E-Government Survey 2010. UN. <http://www2.unpan.org/egovkb/documents/2010/E_Gov_2010_Complete.pdf>. [Retrieved October 02, 2010]

Urdiales, C., de Trazegnies, C.; Salceda, J. & Vazquez; S. F. (2009). *E-Government and Identity Management: Using Biometrics to Reduce the Digital Divide*. University of Malaga, Spain; University of Utrecht, the Netherlands. <<http://www.itif.org/files/DQOL-14.pdf>>. [Retrieved February 12, 2011]

Vignarajah, A. (2010). Current Trends in Computer Technology. Global Business and Technology Association. In: *GBATA Proceedings, Kruger National Park, South Africa*.

West, D. M. (2008a). Improving Technology Utilization in E-Government Around the World. *The Brookings Institution*. <http://www.brookings.edu/reports/2008/0817_egovernment_west.aspx>. [Retrieved January 28, 2011]

West, D. M. (2008b). State and Federal E-Government in the United States. *The Brookings Institution*. <http://www.brookings.edu/reports/2008/0826_egovernment_west.aspx>. [Retrieved January 28, 2011]

White Paper on Local Government SA (1998).

W3schools, (2010). Introduction to Web Services. <<http://www.w3schools.com/webservices/default.asp>> Soapuser.com. SOAP and Basics. <<http://www.soapuser.com/basics1.html>>. [Retrieved October 19, 2010]

Hasson, J. (2008). Business Intelligence. NextGov: Technology and the Business of Government. [Online] Available: http://www.nextgov.com/the_basics/tb_20080222_9289.php. [Accessed: 20 May 2011].

DECENTRALISATION AND LOCAL GOVERNANCE: SERVICE DELIVERY IN RURAL AREAS OF SOUTH AFRICA

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ABSTRACT

The purpose of this paper is to investigate the decentralisation and local governance in the provision of service delivery in rural areas of developing countries including South Africa. The country has legislations that provides for community participation in decisions regarding services and development. Despite the adoption of various legal and policy frameworks, the process of community participation is somewhat flawed. It is evident that service provision should consider community participation as fundamental principles in addressing different needs of society including adequate supply water, sanitation, housing and other basic services. Community participation, most importantly, the inclusion of women in decision making demonstrates the type of governance where decisions are decentralised from the national to local spheres of government. Studies highlighted that decentralisation of local governance could improve the implementation of service delivery for community at large, more specifically to the rural poor in geographically marginalised areas of South Africa. The paper argues that decentralisation of local governance in the provision of service delivery has the potential to contribute for poverty alleviation in rural areas. It revealed that in rural areas of South Africa some social groups such as women and minorities are still marginalised and discriminated in decision making. Thus, the local governance in the provision of public service delivery has been facing a huge challenge in promoting the levels and quality of community participation in decision making.

INTRODUCTION

Effective provision of public services in rural areas has a potential to resolve the problems of poverty that has persisted for many centuries (Mubangizi, 2007; Darkey and Visagie, 2012). Community participation, accountability, transparency and efficiency are the fundamental principles of decentralisation of local governance in public service delivery in rural areas. The community should form a central part in decision making on public service delivery in order to decentralise power and authority from the national to the local sphere of government. The participation of community within local governance makes the municipality to be accountable and transparent during the provision of service delivery. The problem of service provision is the decentralisation process which has engulfed most developing countries (Hampwanye, 2005). Decentralisation of local governance in the provision of public service delivery involves community participation in decision making. The decentralisation of local governance encourages the stakeholders to play a major role during planning and design of service delivery in rural areas. This arrangement of decentralisation of local governance meant the shift of service provision from the national to the local government so that all the stakeholders take part in resolving the perpetuation of poverty (Hampwaye, 2005). However, the decentralisation of local governance in the provision of public service delivery without community participation has deleterious effects in the capacity to resolve the problems of poverty in rural South Africa.

Since public service delivery aims to resolve the manifestation of poverty within the country, the affected community should form a central part in planning and design of service delivery. Thus, the local government and the community should work together in the quest to resolve the perpetuation of poverty and service delivery backlogs. Decentralisation of local governance promotes participatory governance within the local municipality.

Of paramount importance, an interactive relationship between the local municipality and the local community is paramount in the capacity to alleviate poverty in rural areas. The purpose of the paper is to investigate the decentralisation of local governance in public service delivery in rural South Africa. The paper probes the following aspects: decentralisation: conceptual framework, the legislative framework that promote community participation in South Africa, participative governance systems in rural South Africa and decentralisation of local governance in public service delivery.

DECENTRALISATION OF GOVERNANCE: CONCEPTUAL FRAMEWORK

The concept of decentralisation of local governance is comprehensive and takes many forms such as delegation, devolution, privatisation of public services and deregulation (Firman, 2010, Faguet, 2013; Joshi, 2013). Basically, decentralisation is concerned with the transfer of power, authority and responsibility from the national government to the local sphere of government in order to make the community to participate in the local governance. Thus, decentralisation promotes participatory governance. The concept of decentralisation enhances accountability, efficiency and transparency through the participation of and monitoring of decision making in the planning and design of service delivery (Heller, Harilal and Chandhuri, 2007, Firman, 2010; Faguet, 2013). During the decentralisation, the inclusion of previously marginalised and backward groups in various activities of the local municipality helps to accommodate the voice of the community. The involvement of the community in the municipal activities could improve the provision of service delivery and reduces protests.

Decentralisation is aimed at improving the provision of service delivery by involving the stakeholders in local governance (Ababio, 2004, Heller *et al.*, 2007, Ghuman and Singh, 2013; Joshi, 2013). The community are the main stakeholder within local government during service delivery planning, design and execution. The promotion of participatory governance within the local municipality was to put the key stakeholder at the centre of governance. In some counties, the concept of decentralisation is interpreted beyond the transfer of authority within government and thus, includes the mutual sharing of power, authority and responsibility amongst all the stakeholders especially the local community in local governance (Ababio, 2004, Ghuman and Singh, 2013; Joshi, 2013). Thus, community participation is paramount within local governance. This shows that decentralisation promote community participation in the governance of the local government to improve service delivery. The inclusion of stakeholders in local governance integrates the views of the community during the provision of services in rural areas. Decentralisation promotes bottom up approach in service delivery planning in rural areas. The local government and the communities share the responsibilities and authority during service delivery planning in the quest to resolve the manifestation of poverty on rural areas.

DECENTRALISATION: INTERNATIONAL EXPERIENCES

During the period between 1970 and 1980 integrated rural development programme was characterised by centralised approaches of planning and execution in Central Himalaya (Joshi, 2013). Communities did not influence decisions during planning, design and execution about service delivery. This top down approach rarely resulted in a sustainable service delivery. This shows that communities as the main stakeholder did not take part within local governance. The lack of community participation in the governance of service delivery in rural areas makes the capacity to resolve poverty to remain a pipe dream. Though the motivating factors of decentralisation vary from country to country, the underlying philosophy remains the same (Joshi, 2013). The underlying philosophy of decentralisation is to improve public service delivery and bringing governance to the people (Ghuman and Singh, 2013; Joshi, 2013). Decentralisation has emerged as a dominating paradigm in Asia since 1990s (Ghuman and Singh, 2013). The adoption of decentralisation by countries shows the commitment to improve service delivery and resolve the perpetuation of poverty.

However, the results of decentralisation of governance differ from one country to country. Ghuman and Singh (2013) stated that decentralisation resulted in the improvement of service delivery of other counties. However, in some countries, decentralisation resulted in the breakdown of services and centralisation in service delivery was reintroduced (Firman, 2010, Faguet, 2013, Ghuman and Singh, 2013; Joshi, 2013). These simply indicate that the process of decentralisation does not yield the same outcomes in all countries due to the diversity

and uniqueness of each individual country. In many cases, the local communities are not involved during planning, design and execution of service delivery (Ghuman and Singh, 2013; Joshi, 2013). The lack of community participation in service delivery has profound deleterious effects in the capacity to resolve the perpetuation of poverty in rural areas.

LEGISLATIVE FRAMEWORK FOR COMMUNITY PARTICIPATION IN SOUTH AFRICA

The involvement of the community within the local government is recognised by the South African government as a fundamental tool to resolve the persistence of poverty in rural areas. Since 1994 the South African government has enacted legislations that provide for community participation to resolve the marginalisation and discrimination of communities in decision making. The Constitution of the Republic of South Africa, 1996 as the supreme law, White Paper on Local Government, 1998 and Municipal Systems Act, 2000 were enacted to promote community participation in local government. South African government promote decentralisation of local governance “to honour the freedom charter’s provision that The People Shall Govern” (Mzimakwe and Reddy 2008: 627). The decentralisation of local governance is imperative in the provision of public service delivery. The Constitution of the Republic of South Africa, 1996 and Municipal Systems Acts, 2000 encourages participation in the decision making and thus, promoting participative governance.

The Constitution of the Republic of South Africa, 1996

Decentralisation of local governance encourages the community to participate in matters that concerns them. Section 152 (e) of the Constitution clearly indicates that one of the developmental roles of local government is to encourage the involvement of the communities and community organisations in matters of local government (Ababio, 2004). The involvement of the community in decision making and matters of the local government demonstrates participative governance (Vatala, 2005). The Constitution in its preamble aims to heal the past division and establish a society based on democratic values and improve the quality of life for the citizens of South Africa. The aim to improve the quality of life for all the citizens of South Africa through service delivery should encompass participation in decision making. The Constitution promotes a bottom up approach where South Africa citizens form part in decision making process.

The thinking that encompasses a bottom up approach within a local government in decision making demonstrates the decentralisation of governance in the provision of public service delivery (Hampwaye, 2005, Mubangizi, 2011; Joshi, 2013). The bottom up approach promotes community participation in decision making which is imperative in the fight against poverty in rural South Africa. Darkey and Visagie (2012) stated that section 26 (1-3) and 27 (1) (a-b) of the Constitution of the Republic of South Africa, 1996 prioritises the provision of public service delivery such as provision of water, housing, sanitation facilities, education and electricity. The decentralisation of local governance in the provision of public service delivery demonstrates the commitment of the South African government to resolve the persistence of poverty in rural areas.

Municipal Systems Act, 2000 and community participation in local government

In the past, the apartheid government was characterised by a strong focus on central planning and control over decision making in South Africa (Vatala, 2005). There was a clear policy of neglect towards many areas where population is predominantly none-white. This demonstrates that the type of governance system that was practiced prior 1994 was centralised at the national sphere of government. However, since 1994 the South African government has placed emphasis on community, grassroots initiatives and participation focused on improving service delivery in rural South Africa (Vatala, 2005). Section 16 (1) of the Municipal Systems Act, 2000 states that, a municipality must develop a culture of municipal governance that complement representative government with a system of participatory governance. Furthermore, section 16 (1) (a) of the Municipal Systems Act, 2000 states that municipality must create a condition for the local community to participate in the decision making. This shows the importance of the involvement of the community in decentralising local governance. Chapter 4 of

the Municipal Systems Act, 2000 outline the guideline of implementing active community participation in the provision of service delivery.

Decentralisation of local governance in public service delivery is the cornerstone in the fight against poverty in rural South Africa. This involves the participation of all stakeholders within the local government to resolve the persistence of poverty and marginalisation of the poor communities in South Africa. The Municipal Systems Act, 2000 identify the importance of communities to prioritise their needs in the Integrated Development Plan (IDP) (Vatala, 2005). The local government uses the IDP as a tool to resolve the problems of poverty and put the community at the centre of service delivery planning in rural areas of South Africa (Section 16 (1) (a) (i) of the Municipal Systems Act, 2000). The community is able to participate in the decision making in the provision of service delivery.

Decentralisation of local governance in public service delivery is imperative for the community because it has the potential to improve their well-being and reducing the persistence of poverty (Hampwaye, 2005, Mubangizi, 2011, Ghuman and Singh, 2013; Joshi, 2013). The IDP is derived from section 56 (2) (a-b) of the Local Government Municipal Structures Act, 1998 (Vatala, 2005). The IDP is a communication tool that is derived and owned by the community. In the Municipal Systems Act, 2000, section 17 (2) (d & e) states that there must be consultative session with locally organised community organisation, and where appropriate, traditional authorities and report to the local community. This type of governance makes the community to be aware of municipal activities (Hampwaye, 2005). The more the local government consult and report to the community creates a good working relationship which reduce the risks of service delivery protests. Community participation is of paramount importance in the quest to fight poverty. Thus, decentralisation of local governance that integrates community participation and local government in public service delivery has the capacity to resolve the problems of poverty in rural South Africa.

The Constitution of the Republic South Africa, 1996 and the Municipal Systems Act, 2000 has clear guideline of putting the communities at the centre of the provision of service delivery. This legislative framework promotes participation in local governance structures. The decentralisation of governance in public service delivery is adopted as a tool to resolve the service delivery backlog and alleviate poverty. However, despite the inclusion of participation within the Constitution and MSA, 2000, there is still lack of community participation in the local government (Manala, 2010). Thus, the lack of community participation in local governance demonstrates the mismatch between the legislative framework and what is happening at the grassroots.

Despite the promotion of decentralisation of local governance in South Africa's public service delivery, the ruling party (ANC) is having problems in the implementation of these legislations in the local government (Manala, 2010). As a result of the lack of community participation in the public service delivery, poverty in many rural areas is still persisting (Hampwaye, 2005; Manala, 2010). Thus, it is imperative that local governance should promote participative governance in local government. It is stated in the Municipal Systems Act, 2000 that community participation should be at the centre of decision making as it promotes efficiency in public service delivery which has the potential to resolve the problems of poverty in rural areas (Thompson and Nleya, 2008).

PARTICIPATIVE GOVERNANCE STRUCTURES IN RURAL SOUTH AFRICA

In developing countries, "participation is seen as critical to increase the overall capacities of citizens, strengthening fragile democracies, improve quality of governance and countering the influence of organised groups" (Heller *et al.*, 2007:627). The involvement of the community in the decision making is imperative in the provision of public service as it promotes participative governance in local government (Hampwaye, 2005, Mubangizi, 2007, Manala, 2010, Mubangizi, 2011; Darkey and Visagie, 2012). According to De Villiers (2005), local municipality should not only provide services to the community but also spearhead socio-economic development with the involvement of the local community. Community participation in local government put the local people at the centre of service delivery provision in rural South Africa. In this case, the community forms a central part in the governance of service delivery. Participative governance creates an environment for the

community to decide about their service delivery (Manala, 2010). Mubangizi (2007) argues that community participation in local governance promote efficiency in the provision of public service delivery in rural South Africa.

Participative governance in local government involves reporting, consultation and participation of the concerned community (Manala, 2010). This system of governance allows the community to own and participate in the provision of public service delivery. Mubangizi (2007:4-5) argues the “that the emphasis on efficiency in service delivery for community development is prescribed by neo-liberal; market-oriented norms and values are inconsistent with popular community participation as prescribed by theories on people centred development”. Thus, the pursuance of efficiency in public service delivery which is dictated by market-oriented norms and values could easily erode the concept of community participation in local government. The exclusion of community participation in the governance structure creates a problem in the provision of public service delivery in rural areas. As a result, lack of reporting, consultation and community participation create the problems of service delivery protest within the local government (Manala, 2010; Darkey and Visagie, 2012).

However, in Sedibeng Local Municipality, the councillor was reportedly taken hostage by protesters demanding service delivery (Manala, 2010; Darkey and Visagie, 2012). This demonstrates that the community is not given report back about the status of service delivery in their community. Poverty remains a thorn in South African rural areas. OR Tambo District Municipality has largest concentration of poverty in South Africa, with a large percent (70-80%) earning less than R1500.00 per month while 35-50% having no income at all (SANRAL, 2012). This shows a serious problem with poverty as a result of a lack of service delivery in Rural South Africa. The exclusion of community participation in public service delivery has deleterious effects the capacity to resolve poverty within rural areas (Thompson and Nleya, 2008). Thus, the concept of decentralisation of local governance with reference to community participation is imperative in public service delivery.

CHALLENGES OF COMMUNITY PARTICIPATION IN LOCAL GOVERNANCE

Community participation is one of the cornerstones of effective, transparent and accountable local governance (Nzimakwe and Reddy, 2008). Decentralisation of governance puts the community at the centre during the provision of service delivery planning and design. The involvement of the Community in local governance is profound in honour of Freedom Charter’s provision that The People Shall Govern (Nzimakwe and Reddy, 2008). The provision that the people shall govern demonstrates that community participation in local governance is indispensable in the quest to resolve the service delivery backlog and manifestation of poverty in rural areas. However, decentralisation of local governance has encountered challenges in the capacity to promote municipal democracy and improve service delivery in rural South Africa. In many municipalities in South Africa, ward committees are the linkage between local government and the community (Nzimakwe and Reddy, 2008). Ward committees are made of people 10 or less depending on the municipality. This is due to the view that communities are homogeneous in nature. However, the use of ward committees during community participation neglects the heterogeneity nature of the communities. Thus, the small numbers of ward committees are not representative of the communities. The diversity of needs within the community is not integrated in the IDP (McEwan, 2003, Ababio, 2004, Nzimakwe and Reddy, 2008; Mubangizi, 2011).

The local government continue to make decisions for the communities due to the ward committees that do not know their roles (Nzimakwe and Reddy, 2008). This demonstrates that, regardless of the decentralisation of governance and promotion of community participation in municipalities, local government continue to be the central decision makers in service delivery planning. According to Nzimakwe and Reddy (2008: 677), “the ward committees were not discharging their developmental mandate in terms of enhancing participatory democracy to the local sphere”. If the ward committees do not discharge their developmental mandates to the local sphere, community participation cease to exist. The shortcoming of ward committees is that it takes a form of self serving action that leads to clashes in the diversity of interest within the community (Ababio, 2004; Nzimakwe and Reddy, 2008). The interests of the community are served within the local municipality.

Decentralisation of authority from the national sphere of government to the local sphere of government was promoted in order to improve the level of service delivery provision in South Africa (Ababio, 2004; Ndzimakwe and Reddy, 2008). However, decentralisation of local governance has encountered with many challenges regarding community participation in the governance of the municipal activities in rural areas. Local municipality uses ward committee members as a form of community involvement in rural areas. In South African local municipalities, ward committees are viewed as a communication linkage between the municipality and the communities (Ababio, 2004; Ndzimakwe and Reddy, 2008). The ward committees represent the views of the community during planning and design of public service delivery in rural areas. The participation of the community representatives in the municipal activities promotes participatory governance (Firman, 2010; Faguet, 2013). However, this kind of community participation comes with many deleterious effects in the quest to resolve the service delivery backlog and poverty in rural areas. In most cases, the ward committees do not report to the community concerning municipal activities. Of paramount importance, the ward committees do not carry out the mandates given by the community to the local municipality (Joshi, 2013). This creates a gap between the community and the municipality during service delivery planning and design. Despite decentralisation of local governance, rural community remain voiceless in service delivery planning and design.

The lack of capacity from the ward committees creates a huge problem during planning and design of service delivery (Ababio, 2004). Local municipality continue to be the decision makers for public service delivery due to the lack of capacity from the ward committees. Regardless of the decentralisation of local governance in decision making process, power is still centralised within the local municipality (Firman, 2010; Faguet, 2013). Thus, community participation that was stated in the Constitution of the Republic of South Africa, 1996 and Municipal Systems Act, 2000 cease to exist in rural areas. In cases where ward committees participate in decision making, the question remains that: do their voices matter during planning and design of service delivery in rural areas? The marginalisation of communities during service delivery planning creates a lot of frustration, which subsequently leading to violent protest (Mubangizi, 2007). Violent protests within the municipality are perpetuated by the lack of consultation, reporting and the involvement of the community in the governance. Thus, decentralisation of governance without the involvement of the community has deleterious effects in the capacity to resolve the perpetuation of poverty in rural areas.

DECENTRALISATION OF LOCAL GOVERNANCE IN PUBLIC SERVICE DELIVERY

The South Africa's democratic dispensation has, in the past years progressively created the opportunity that considered previously disadvantaged marginalised and discriminated members of the societies to take part in the decision making (Nengwekhulu, 2009). The government of South Africa has expanded the public service delivery through the process of decentralisation of local governance to resolve the perpetuation of poverty within rural communities (Hampwaye, 2005; Mubangizi, 2011). This process of decentralisation of local governance encourages the community to be at the centre of decision making. The engagement of the community in the public service delivery it is imperative in the fight against poverty in rural South Africa. The public service delivery has the potential to resolve the perpetuation of different forms of poverty in rural areas. However, despite the range of poverty alleviation strategies that were adopted in South Africa and opportunity for participation in governance, the poor remain marginalised in decision making loop in service delivery planning (Nengwekhulu, 2009; Mubangizi, 2011). The governance system where the community does not form the central part in decision making in public service delivery has a deleterious effect in the quest to fight poverty within rural South Africa.

Even though, there has been improvement in the level of service delivery in South Africa, the problems of poverty, acute shortage of housing, poor high health services and falling standards of education are still manifesting in democratic South Africa (Nengwekhulu, 2009). Thus, decentralisation of local governance is of paramount importance in decision making to promote the participation of the community as they are the main stakeholder in the local municipality. Community participation requires the local government to consult the concerned community in all matters that affects them. It is imperative to decentralise local governance so that the community take charge of their own service delivery provision (Hampwaye, 2005, Mubangizi, 2007, Nengwekhulu, 2009, Mubangizi, 2011; Darkey and Visagie, 2012). Public service delivery to poorer community

has become a focus point of local government strategies to resolve of poverty (Thompson and Nleya, 2008). The provision of water, housing, sanitation and electricity remain the centre in resolving the persistence of poverty. However, despite the provision of public service delivery (water, sanitation and electricity), poverty has not decreased in the margin in the township ad rural areas (Darkey and Visagie, 2012). Thus, the persistence of poverty within the rural communities in spite of the provision of public services demonstrates a gap between the local government and the community. Community participation is not fully been integrated in public service delivery within the local government (Hampwaye, 2005, Manala, 2010, Derkay and Visagie, 2012). The lack of community participation in service delivery indicates that local government has not decentralised governance to the community.

CONCLUSION

Decentralisation of local governance in rural areas improves the capacity of local people to participate in decision making. However, decentralisation encountered many challenges with regard to participation of stakeholders within local governance. The main stakeholder within the local governance does not participate fully during municipal activities and service delivery planning and design. South Africa's local municipalities use ward committees during service delivery planning and design. In many cases, lack of capacity, lack of clear functions, self serving and loss of interest from the ward committees creates a huge problem in the quest to resolve the perpetuation of poverty in rural areas. Thus, the local government continue to make decision on service delivery during the IDP meeting. The notion of decentralisation of local governance remains a pipe dream in most of the local government in South Africa.

However, interactive participation within local government should be adopted in order to give the community a central role to play in the decision making processes. The Interactive Community Participation in Local Governance (ICPLG) should be the key during the provision of service delivery in rural areas. ICPLG will improve the relationship between the community and the local government. The local government continuously consult and report to the communities on the municipal activities. Thus, ensures that the communities are aware of the municipal activities and thus, reduces the possibilities of service delivery protest within the local municipality. ICPLG is a good way of decentralising local governance within South Africa's local Municipalities.

REFERENCES

- Ababio, E.P. (2004). Enhancing Community Participation in Developmental Local Government for Improved Service Delivery. *Journal of Public Administration*, 39 (2): 272 – 289.
- Darkey, D. and Visagie, J. (2012). The More Things Changes the More they Remain the Same: A Study on the Quality of Life in an Informal Township in Tshwane. *Habitation International*, 30: 1-8.
- De Villiers, A. and Kalema, R. (2005). Challenges and Opportunities for Local Government Development with Reference to the Polokwane Municipality in Limpopo Province of South Africa. *Journal of Public Administration*, 40 (1): 78-90.
- Faguet, J. (2013). Decentralization and governance. *World Development*, available online 06 March 2013.
- Firman, T. (2010). Multi local Government Under Indonesia's Decentralization Reform: The Case of Kartamantul (The Greater Yogyakarta). *Habitat International*, 34 (4): 400-405.
- Ghuman, B.S. and Singh, R. (2013). Decentralisation and Delivery of Public Services in Asia, *Policy and Society*, 32 (1): 7-21.
- Hampwane, G. (2005). Decentralisation and Public Service Provision in Zambia. *Africa Insight*, 35 (4): 80-89.
- Joshi, D.U. (2013). Decentralisation of Public Service Delivery in the Central Himalayas: The Myth of Community Participation. *Policy and Society*, 32 (1): 23 – 32.

- Heller, P., Harilal, K.N. and Chandhuri, S. (2007). Building Local Democracy: Evaluating the Impact of Decentralization in Kerala, India. *World Development*, 35 (4): 626-648.
- Manala, M.J. (2010). 'A Better Life for All': A Reality or a Pipe Dream? A Black Theology Intervention in Condition of Poor Service Delivery in the Democratic South Africa. *Scriptura*, 105: 519-531.
- McEwan, C. (2003). Bringing Government to the People: Women, Local Governance and Community Participation in South Africa. *Geoforum*, 34: 469-481.
- Mubangizi, B.C. (2007). Service Delivery for Community Development: Reconciling Participation with Specific Reference to a South African Rural Village. *Journal of Public Administration*, 42 (1): 4-17.
- Mubangizi, B.C. (2011). Public Service Transformation: Implication for Poverty Reduction in South Africa. *Politeia*, 30 (3): 74-90.
- Nengwekhulu, R.H. (2009). Public Service Delivery Challenges Facing the South African Public Service. *Journal of Public Administration*, 44 (2): 341-363.
- Nzimakwe, T.I. and Reddy, P.S. (2008). Community Participation in Ethekwini Municipality with Particular Reference to Ward Committees. *Journal of Public Administration*, 43 (4.1): 667- 679.
- Republic of South Africa. (1996) Constitution of the Republic of South Africa. <http://www.info.gov.za/documents/constitution/1996/a108-96.pdf>, 14/03/2013.
- Thompson, L. and Nleya, N. (2008). Millennium Development Goals and Water Service Strategies: Reflection on the Fit Between National and Local Policies on Water in the Context of Global Poverty Alleviation Initiatives. *Africanus*, 38 (2): 115-128.
- Vatala, S.W. (2005). Synergy Between an Integrated Development Plan, a Service Delivery and Budget Implementation Plan (SDBIP) and other Related Plan for 2005-2006 Fiscal Year. *Journal of Public Administration*, conference proceeding. October: 225-233.

AN ANALYSIS OF THE ROLES AND RESPONSIBILITIES OF THE DIFFERENT ACTORS IN THE IDP PROCESS: THE CASE OF THE MPUMALANGA PROVINCE, SOUTH AFRICA

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ABSTRACT

In the 1990s, South Africa has adapted the concept of integrated planning from strengthening international trends towards holistic and more sustainable development, and was seen by the country as an appropriate method of beginning to address the deficiencies and injustices of apartheid planning. It was stressed that a new system of municipal planning should ensure the participation of communities, address most urgently the citizens' basic needs, aims to disintegrate unjust special or institutional patterns of privileged, and be focuses on service delivery. These ideas gradually developed into the new concept of Integrated Development Plan (IDP). In 2000, the government passed the Local Government Municipal Systems Act (Act 32 of 2000), which requires all Districts and Local Municipalities to prepare IDPs. The IDP is aimed at integrated development and management of the area under the jurisdiction of the municipality and is developed in terms of its allocated powers and duties. According to the Act, the municipalities are required to prepare a five-year strategic plan that is reviewed annually in consultation with local communities and other stakeholders in the municipality. The IDP seeks to promote integration by balancing the social, economic and ecological aspects of sustainability without compromising the institutional capacity required in implementation. The IDP is seen as a local pathway to sustainable development in South Africa, and it is used to foster more appropriate service delivery and infrastructural development by providing the framework for economic and social development within a municipality and, by implementation, it facilitates poverty relief. The associated planning process is meant to arrive at decisions such as the design of appropriate municipal budgets, land management, the promotion of local economic development and institutional transformation in a consultative, systematic and strategic manner. The findings of this paper reveal that there is a lack of adequate understanding of the impact of IDPs in local development of the communities. It is indicated that the proper consultation between the municipalities and the actors does exist.

INTRODUCTION

According to the Constitution of the Republic of South Africa (Act 108 of 1996), Local Government is required to serve a political representative function with active community participation in order to achieve improved service delivery, social and economic development and a healthy environment. It is the responsibility of any municipality to give priority to meeting local needs through service delivery, local economic development, special planning and health care planning (RSA, Section 153, 1996). The main aim of the IDP, as stated in Section B of the White Paper on Local Government (1998), is to enhance service delivery and fight poverty through an integrated and aligned approach between different role-players and stakeholders. For the purpose of this paper, the concept Developmental Local Government is used within the context which ensures that all communities have access to basic services; everyone participates in decision making and planning; local economy grows; job opportunities increase; and local resources are used wisely to improve the quality of life for everyone, now and in the future (The Planact, 2001).

EXPLANATION OF THE IDP

According to the IDP Guide Pack Integrated Development Planning is a process through which municipalities prepare a strategic development plan, for a five year period. The Local Government: Municipal Systems Act (Act 32 of 2000) defines the IDP as a single inclusive and strategic plan for the development of the municipality that links, integrates and coordinates a municipality's sector specific plans; aligns the resources and capacity of the municipality to the overall development objectives of the municipality; forms the policy framework on which annual budgets rest; and informs and is informed by similar development plans at national and provincial development plans. In other words, the IDP is participatory planning process aimed at integrating sectoral strategies, in order to support the optimal allocation of scarce resources between sectors and geographic areas and across the population in a manner that promotes sustainable growth, equity and empowerment of the poor and marginalized (The Planact, 2001).

Based on the above, it can be argued that integrated means not one sector only (for example, housing), but bringing together all relevant sectors, issues and concerns as a whole. It also means the collective efforts of the national, provincial and local government together with, inter alia, individual residents, the private sector, non-governmental organizations and other stakeholders must be harnessed. However community participation is required for IDP (Befile, 2009).

The Policy Paper on IDP (DPLG, 2000) states the following six broad roles of IDP:

- Provide a strategic framework for municipal management, budgeting, delivery and implementation;
- Ensure political accountability and continuity;
- Facilitate interaction, engagement, communication and the building of alliance;
- Transform local government into a vehicle for development;
- Promote socio-economic development; and
- Help municipalities devise holistic strategies for alleviating poverty and creating livelihoods.

In this connection, the White Paper on Local Government (1998) reaffirms the fact that IDPs are planning and strategic frameworks to help municipalities to fulfill their developmental mandate. They ensure the alignment of resources with objectives, integration of planning, the prioritizing of essential aspects, sustainability, the prioritizing of poverty alleviation and that scarce resources are utilized where they will make greatest impact on improving the general welfare of society. The fact that IDPs are reviewed annually makes them incremental, relevant and responsive to changing environments and circumstances.

Section 26 of the Local Government Municipal Systems Act (Act 32 of 2000) state that an IDP must reflect the following:

- The municipal council's vision for the long term development of the municipality with special emphasis on the municipality's most critical development and internal transformation needs;
- An assessment of the existing level of development in the municipality, which must include an identification of communities which do not have access to basic services;
- The council's development priorities and objectives for its elected term, including its local economic development aims and its internal transformation needs;
- A spatial development framework which must include the provision of basic guidelines for a land use management system for the municipality;
- The council's operational strategies;
- Applicable disaster management plans;
- A financial plan, which must include a budget projection for at least the next three years; and
- The key performance indicators and performance targets determined in terms of Section 41.

The above section of the act serves to illustrate the significance of IDP in terms of prioritising key community needs through an integrated approach. In addition, the constitution (1996) state that a municipality must structure and manage its administration and budgeting and planning process to give priority to the basic needs of the community and to promote the social and economic development of the community; and participate in national and provincial development programmes.

THE IDP PROCESS

The process undertaken to draft an IDP consist of the following five phases as outlined by the former Department of Provincial and Local Government (2000):

➤ Phase 1: Analysis

During this phase, information is collected on the existing conditions within the municipality. It focuses on the types of problems faced by people in the area and the causes of these problems. The identified problems are assessed and prioritised in terms what is urgent and what needs to be done first. Information on availability of resources is also collected during this phase. At the end of this phase, the municipality will be able to provide an assessment of the existing level of development; details on priority issues and problems and their causes; and information on available resources.

➤ Phase 2: Strategies

During this phase, the municipality works on finding solutions to the problems assessed in phase one. This entails the developing a vision – the vision is a statement of the ideal situation the municipality would like to achieve in the long term once it has addressed the problems outlined in phase one; defining developmental objectives – development objectives are clear statements of what the municipality would like to achieve in the medium term to deal with the problems outlined in phase one; development strategies; development strategies – once the municipality has worked out where it wants to go and what it needs to do to get there, it needs to work out how to get there. A development strategy is about finding the best way for the municipality to meet a development objective; and project identification – once the municipality has identified the best methods for achieving its development objectives it leads to the identification of specific projects.

➤ Phase 3: Projects

During this phase, the municipality works on the design and content of projects identified during phase two. Clear targets must be set and indicators worked out to measure performance as well as the impact of individual projects.

➤ Phase 4: Integration

Once all projects have been identified, the municipality has to check again that they contribute to meeting the objectives outlined in phase two. These projects will provide an overall picture of the development plans. All the development plans must now be integrated. The municipality should also have overall strategies for issues like dealing with AIDS, poverty alleviation and disaster management. These strategies should be integrated with the overall IDP. These integrated programmes are typical medium to long-term plans.

➤ Phase 5: Approval

This is the final phase, during which IDP is presented to the council for consideration and adoption. The council may adopt a draft for public comment before approving a finalized IDP. The table below present the planning participation phases.

Planning phase	Methods for participation
Analysis	Community meetings organised by the ward councilor Stakeholder meetings Surveys and opinion polls (getting views on how people feel about a particular issue)

Strategies	IDP Representative Forum Public debates on what can work best in solving a problem
Projects	Meetings with affected communities and stakeholders Representation of stakeholders on project subcommittees
Integration	IDP Representative Forum
Approval	Public discussion and consultation with communities and stakeholders
Monitoring and implementation	IDP Representative Forum

The municipal actors for the category B Local Municipalities are discussed below as stipulated in the South African legislations and interpreted and analysed by the researcher:

THE MUNICIPAL ACTORS, ROLES AND RESPONSIBILITIES

It is significant to state that the general role of the municipal actors is that of decision making. The roles and responsibilities are normally distributed to the following identified actors within a municipality in the IDP process; firstly, the Municipal Council – has the responsibilities to consider and adopt a programme for the planning process and approve the IDP. The fact of the matter is that the municipal council is accountable to the public on the utilization of public resources. Secondly, the Executive Committee or Executive Mayor or Committee of Appointed Councillors – amongst other things, this actor is responsible for the overall management, coordination and monitoring of the process and drafting of an IDP. This actor has to decide on the programme for the planning process. Furthermore, the responsibilities include nominating persons to be in charge of the different roles, activities and responsibilities of the process and drafting of an IDP. The third actor becomes the councillors – it is evident that councillors should link the planning process to their constituencies by organising public meetings which will enhance community consultation and participation. Councillors are responsible to ensure that budgetary functions and the relevance of annual business plans are incorporated to an IDP in terms of its alignment with the provincial and national department budgets. The fourth actor is the municipal Manager and/or IDP Manager – has to do with the preparation of the programme for the planning process. It is argued that he/she will undertake the overall management and coordination of the planning process to ensure effectiveness and efficiency. He/She must ensure that the planning process is participatory and implementation orientated and is aligned with sector planning requirements. The fifth actor becomes the Head of Departments and Officials – have roles to provide relevant technical, sector and financial information for the analysis phase and identification of projects and the drafting of projects proposals of the municipality. They are responsible for the preparation of the integrated phase. In regards to the approval phase, it is argued that they are responsible for preparing amendments to the draft IDP for submission to the municipal council and the Member of the Executive Council (MEC) for Co-Operation Government and Traditional Affairs (COGTA) for alignment.

CIVIL SOCIETY ACTORS, ROLES AND RESPONSIBILITIES

It should be taken into cognizance that the general role of the civil society actors is to represent the interest of the communities, to inform, negotiate and comment on the decisions made by the municipal council. In this case, the roles and responsibilities of the civil society actors are found in all stakeholders, interest groups and affected parties – they represent their interest and contribute knowledge and ideas in the planning process. It is a common knowledge that they must conduct meetings and workshops with their constituencies to prepare for the planning activities to give priority on matters affecting them. Representatively on the participatory process in IDP forms an integral of the planning process in local municipality. They further have responsibilities to participate in the designing of project proposals and to ensure that the annual business plans and municipal budget is linked to the IDP. As a result, they discuss and comment on the draft IDP and monitor the performance during the implementation period. These issues are also handled by structures such as IDP Forum and IDP Steering Committee.

PROVINCIAL GOVERNMENT ACTORS, ROLES AND RESPONSIBILITIES

The general role of the provincial government is to give feedback to the municipalities on matters of the IDP progress, such as, compliance with the legal and policy requirements, methodological aspects of planning, feasibility and viability of the proposed projects and programmes and decision making process. The provincial government actors can be identified as follows: firstly, the COGTA Department – has to do with the establishment of the logistics such as procedures, coordination of the intergovernmental system, strategies, projects and integrated programmes between district municipalities and provincial sector departments. This department is monitoring the process followed by the municipalities in this category. It further assists municipalities in the planning and drafting process of the IDP. The department is also responsible to facilitate the resolution of disputes between a community and the municipality and between municipalities. Secondly, the Sector Departments – (for example, the Department of Water and other departments which must be consulted towards the preparation of the planning process of the IDP) has responsibilities to contribute relevant information on the provincial sector department plans, programmes, budgets, objectives strategies and projects in a concise and accessible manner. It further has roles to contribute sector expertise and technical knowledge to the formulation of the municipal strategies and projects. Moreover, it must participate in and be bound by the decisions of the provincial management system of coordination.

SUPPORT PROVIDERS ACTORS, ROLES AND RESPONSIBILITIES

It is argued that the general role of these actors is to assist in the planning and the drafting of outputs for the municipal council and the stakeholders to make better decisions more efficiently. The first actor is the Facilitators and/or Planners internal or external to the municipality including PIMS Centres – has to provide methodological guidance to the planning process and facilitate planning workshops and group activities. They undertake special studies in support of the planning phases at Local Government. Moreover, they support the management of the IDP and in the alignment procedures between the municipalities and spheres of government. The second actor is the Development Advocates or Non-Governmental Organisations (NGOs) or Resource persons – their roles include amongst other, providing support to organised and unorganised groups, organisations and institutions to contribute in the planning process. The third actor is the Service Providers – their responsibilities is to provide information on their service investment programmes, implementation of plans, etc. and promote the process of mutual alignment with the municipalities in this category. The last actor is the Technical Experts, Consultant and NGOs – they have responsibilities to prepare specific and product related contributions in supporting and documenting the outputs of the analysis phase, strategic phase, project phase and integrated programmes of the IDP.

CONCLUSION

In conclusion, both the Constitution and the Local Government: Municipal Systems Act clearly stipulates that the municipality must mobilize the involvement and commitment of its stakeholders by establishing an effective participatory process. The IDP is a very interactive participatory process which requires involvement of number of stakeholders as discussed in the text above. It is evident that the IDP is a good tool and if it can be implemented properly, the ongoing community unrest would stop. The researcher does acknowledge the fact that most of the municipalities would be confronted with some challenges, however they can do much better when it comes to better the services they render to communities.

REFERENCES

Befile, T. 2009. *An Investigation Of The Implementation Of Integrated Development Planning (Idp) As A Mechanism To Alleviate Poverty In Port Elizabeth In The Nelson Mandela Bay Metropolitan Municipality*. Port Elizabeth.

South Africa. 1996. *Constitution Of The Republic Of South Africa Act (Act 108 Of 1996)*. Pretoria. Government Printers.

South Africa. 1998. *White Paper On Local Government*. Pretoria: Government Printers.

South Africa. 2000. *Department Of Provincial And Local Government*. Pretoria: Government Printers.

South Africa. 2000. *Local Government: Municipal Systems Act (Act 32 Of 2000)*. Pretoria: Government Printers.

The Planact Module 3. 2001. *Planning For Development*. Johannesburg.

AN ANALYSIS OF THE XENOPHOBIC ATTACKS EXPERIENCED BY SOUTH AFRICA: THE CASE OF THE MPUMALANGA PROVINCE

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ABSTRACT

Since the demise of the then Apartheid regime transcending to new democratic governance, South Africa experienced a proliferation of foreigners into the country as asylum seekers and general non documented immigrants inhabiting our country. Many of these foreigners integrated themselves with the demographic of South African community. Judge Jody Kollapen asserted that South Africa consist of unequal society meaning that the gap between the have and the have not is greater. Evidently are the high levels of unemployment in South Africa and the competition against resources by the society. In May 2008, widespread violence against foreigners broke out in Alexandra. The International Organization for Migration (2009) report assert that "in its wake, 62 people, including 21 South Africans, were dead; at least 670 wounded; dozen of women raped and at least 100 000 persons displaced and property worth of millions of Rand looted, destroyed or seized by local residents and leaders". There are general affirmations and observations by media and foreigners that South Africans are xenophobic. Hence in the contrary the South African Government asserts that South African are not xenophobic, however attacks of the foreign nationals is perpetuated and motivated by criminal activities. There is a need to establish what caused these attacks on foreign National leading to insecurity in South Africa to a certain extent. This case study is ensued to investigate and impart knowledge on the manifestation of the xenophobic attacks. Although much research has been done on xenophobia in the world minimal information about South Africa's xenophobic attacks is available. There is a need to build on the existing body of knowledge to prevent future conflict and to impart knowledge about xenophobia.

The purpose of this paper is to explore which factors were responsible for the manifestation of the xenophobic attacks. The Mpumalanga Xenophobic attacks case study is ensued to establish factors which lead to the manifestation of the xenophobic attacks.

INTRODUCTION

Five years ago, South Africa was shaken by the outbreak of a wave of violence. This violence was purely targeted to foreign nationals irrespective of the fact that the South African Constitution (1996) outlines the vision of an equality-based society and in its preamble; it states that "South Africa belongs to all who live in it, united in our diversity". Despite these constitutional provisions, a range of civil organisations, human rights actors and academics have observed ongoing patterns of crimes specifically targeting people on the basis of their race, nationality, religion, sexual orientation or other such factors. Such crimes, known internationally as hate crimes, undermine social cohesion and have traumatic impact on victims (Breen and Nel, 2011).

Harris (2001) argues that xenophobia and economic exploitations are not peculiar to South Africa and the literature has proven that it has been the worldwide phenomenon. These xenophobic attacks are selective in nature with black foreigners representing the common victims of hostility. Global trends indicate that xenophobia is predominantly in the countries undergoing transition with the tendency of government to conflate foreigners with crime. However currently there is no evidence at our disposal supporting the latter statement implicating the South African government conflating bases for escalation of crime as perpetuated by the presence of foreigners. It should be taken into cognisance that many of the foreigners ascend to South Africa for different reasons of which some will be discussed later on this paper.

For the purpose of this paper, the concept “xenophobia” will be defined in the context within which it is used in the paper. Xenophobia is defined as a strong dislike of foreigners (South African Oxford School Dictionary, 2008). In this context, it should be noted that the xenophobic experiences in South Africa had some elements of hatred and fear coupled with physical abuse which translated to be a scapegoat for social challenges confronting the country.

LEGISLATIVE FRAMEWORK ON MIGRATION

The researcher would like to acknowledge the fact that the country does have policies governing migration without deliberating on their contents. Perhaps for the purpose of this paper, it is suffice just to mention them as follows:

- Allies Control Act of 1991;
- Allies Control Amendment Act of 1995;
- The Green Paper on International Migration of 1997;
- The White Paper on Refugees of 1998 (enacted in April 2000); and
- The White Paper on International Migration of 1999.

The above mentioned legislations serve to justify the fact that the government had to contextualise immigration policies within the South Africa’s political transition from apartheid to a democracy governed by constitutional equality (Sign, 2011).

RESEARCH DESIGN AND METHODOLOGY

The research design used on this paper was in accordance with the qualitative approach. Garbers (1996: 283) state that the objective of qualitative research is to promote better self-understanding and increase insight into the human condition. He further argues that in qualitative research the emphasis is on improved understanding of human behavior and experience and researchers try to understand the ways in which different individuals make sense of their lives and describe those meanings. In qualitative research, empirical observation is important as researchers need to study real cases of human behavior if they are to be in a position to reflect on human condition meaningfully and with clarity. The fact that this paper was conducted within a social sciences context or setting, the selected methodology was appropriate for probing in depth the complexities involved and explored the reasons of these xenophobic attacks in the Mpumalanga Province through observation and existing literature which is purely secondary source dealing with violent collective behavior. The qualitative research method applied in this paper was appropriate as it enabled the researcher to interact closely with the subjects in their natural settings.

XENOPHOBIA IN CONTEXT: THE SA EXPERIENCE

As it has been alluded above, violence against foreign nationals in South Africa was noted as a major social challenge as far back as 1998. Breen and Nel (2011) argue that some of the trends of xenophobic violence are (i) indiscriminate mob violence against all foreign nationals in a particular area; (ii) attacks, intimidation or specific looting campaigns targeting foreign owned business; and (iii) individual attacks on foreign nationals. The literature on this topic indicate that the attacks on foreign nationals have received prominent and high level attention in 1998, whereby the South African Human Rights Commission (SAHRC) and the United Nation High Commission for Refugees (UNHCR) convened a consultative conference where they adopted a Braamfontein Statement, which read thus:

“No one, whether in this country legally or not, can be deprived of his or her basic or fundamental rights and cannot be treated as less than human. The mere fact of being an [alien] or being without legal status does not mean that one is fair game to all manner of exploitation or violence or to criminal, arbitrary or inhuman treatment. Foreigners in our midst are entitled to the support and defence of our law and constitution. Our Constitution states that we seek to construct a society where “human dignity, the achievement of equality and the advancement of human rights and freedoms” are abiding values. The Bill of Rights confers certain

rights to “everyone”. These are the rights to equality, human dignity, the right to life, freedom and security of the person, and the right not to be subject to slavery, servitude or forced labour. [The] manifestation [of xenophobia] is a violation of human rights. South Africa needs to send out a strong message that an irrational prejudice and hostility towards non-nationals is not acceptable under any circumstances. Criminal behaviour towards foreigners cannot be tolerated in a democratic society”. (SAHRC, 1998).

The above statement serves to illustrate the fact that violence of any kind, in this case, xenophobic attacks cannot be tolerated. In a statement made by the Minister of Police, Mr Nathi Mthethwa, in 2010, categorically stated that violence against foreign nationals can be described as criminality perpetuated by criminal elements (Polzer and Takabvirwa, 2010).

In this connection, the researcher would like to make reference very briefly to the “Frustration-Aggression Theory” as an attempt to convey a particular point. This theory assumed that aggression was always a consequence of frustration. For instance, the theory suggests two dogmatic views of the relationship between frustration and aggression. Aggression behavior is always preceded by frustration and creates readiness for aggressive behavior (Ladd, 2007). According to Barash *et al* (2002), the hypothesis of frustration-aggression is explained as the increase of frustration due to human goals not being met. For example, when human beings seek certain goals (such as food, services, political freedom) and are unsuccessful in their quest, it may result in increased frustration, which most likely would result in conflicts.

The Frustration-Aggression Theory was later modified to recognise that frustration creates a state of readiness for aggression that is an emotional state of anger and environmental factors are necessary for the aggression to manifest into conflict. Individual’s experiences and societies’ experiences have been recognised as exerting powerful influence on the relationship between frustration and aggression (Brash *et al*, 2002).

Ladd (2007) and Barash *et al* (2002) criticised this theory as being too simplistic towards the understanding of humanity and its dynamics. They argue that although frustration may result because of discrepancies between the expected need and actual reality, societal structures prevent frustration from turning into aggressive behavior. The South African society were frustrated because of their basic service-delivery needs were not met by the government. In addition, they felt that local residents are not preferred for employment; instead the foreign nationals get employment easier.

The above arguments is supported by most literatures, amongst others, include Harries (2001) argues that many African scholars argue that xenophobia is used as a scapegoat for social ills left by the apartheid regime. During the apartheid era South Africans were inhabited and welcomed by the fellow African countries. In the contrary after South Africa gained freedom many foreigners descended to South Africa for number of reasons such as employment, asylum seekers or war in their respective countries since South Africa is part of the United Nations Member State. It can be argued that apartheid insulated South African citizens from nationalities beyond South Africa. In this context foreigners represented the unknown to South Africans. The interface between previously isolated South Africa and the unknown foreigners created a space for hostility to develop: “When a group has no history of incorporating strangers it may find difficult to be welcoming” (Morris, 1998:1125).

Furthermore, it can be argued that scapegoating has largely emerged through social theory and it locates xenophobia with the context of social transition and change. Hostility against foreigners has been explained in relation to limited resources such as housing, unemployment, education, health care which generated high expectation during South Africa’s transition from autocratic regime to democratic governance (Tshitereke, 1999). Peberdy argues that foreigners in South Africa are represented as a threat to nation (Peberdy, 1999). This notion is further supported by Tshitereke (1999:4):

“In the post-apartheid epoch, while people’s expectations have been heightened, a realization that delivery is not immediate has meant that discontent and indignation are at their peak. People are more conscious of their deprivation than ever before.... This is the ideal situation for a phenomenon like xenophobia to take root and flourish. South Africa’s political transition to democracy has exposed the unequal distribution of resources and wealth in the country”.

Perhaps the most obvious, is the fact that South Africans still tend to see themselves as separated from the rest of the African continent and, combined with many years of isolation, do not easily identify with other Africans. Increased migrant and refugee flows to South Africa since 1994 has meant that foreigners are now much more visible.

In fact, xenophobia is conceptualized in terms of frustrations and relative deprivation. This argument is supported by Harris (2002) by arguing that relative-deprivation theory suggests that a key psychological factor in generating social unrest is a sense of relative deprivation. In the contrary Political Scientist Annette Seegers argues that 'frustrations breeds anger, yet angry people do not always commit violence, instead they could turn their anger inwards and commit suicide. In the South African context people release their anger on that frustration scapegoat usually on non-national minorities.

It is also necessary to map the 2008 violence against the state of social cohesion in South Africa during that period. Since 1994, government and other sectors of society have promoted an inclusive society, and a consistent call for unity for all society has dominated the public discourse. There are a number of indicators that are used to measure social cohesion, some of them being the strength of South Africa's democracy, the vitality of civil society and trust and tolerance among citizens as well as national identity. The government's Fifteen Year Review Report, published in October 2008 observes that social cohesion is under more stress than it was in the past years.

Bekker *et al* (2008) have observed the following during these attacks:

- Government and state official reactions underline denial of both the extent and the serious nature of the outbursts. Ministers and officials denied that the outbursts (in Alexandra and then Diepsloot and elsewhere in Gauteng) were of a xenophobic nature and that they were related to one another. Two alternative explanations were offered. The first was that the perpetrators were 'criminals' and the second that there was a 'third force' at work. A national minister was quoted as stating that the violence would be over within a week.
- Other early explanations found in the press that structural causes raised repeatedly included failure of government policies, such as service delivery, failure to address crime, collapse of border controls and unsuccessful diplomacy toward Zimbabwe; the high unemployment rate particularly for young urban black men; and the failings of the police (whether from lack of resources or poor training). In addition, evidence for widespread sentiments of xenophobia among poor urban residents was reported on often.
- More sophisticated analyses were made by certain officials and experts: 'residents of Alex have been living in inadequate housing... a veritable pressure cooker. The tipping point: perceptions of foreigners jumping the housing queue...Dissatisfaction ... has taken on the face of immigrants...'
- The main result of some press scan of explanations is the predominance of external structural causes in the explanations. Little attention was given to factors directly related to individual outbursts themselves and equally little to the meaning residents gave to local issues. No explanation that raised the issue of risk aversion as a factor in target selection or the reversal of humiliation through collective action was found in the scan.
- Explanations using external structural causes as their main thrust fell overwhelmingly within the relative deprivation approach. Here, perpetrators are viewed as frustrated individuals (due to unemployment, poverty, lack of services, perceived unfair competition, etc) who convert this frustration into aggression. There is a tendency accordingly to view these perpetrators more as victims than as antagonists. One example falling within the resource mobilization approach – where perpetrators were perceived to be putting up 'a rugged disdainful resistance' to government - was identified above.
- During the initial period of the series of outbursts, government (and others) tended to give reductionist one-factor causes we have called 'riff-raff' and 'agitator' explanations. Later, explanations became more complex and sophisticated and the role that mass media played in the spread of the outbursts became an issue. Most later explanations however employed 'recipe analysis' –apportioning guilt on a proportional basis – and the main reason for this is probably the fact that explanations remain at the structural contextual level, external to the local circumstances of each individual outburst and accordingly lacking any understanding of local conditions and how local residents themselves understand their situation.

Perhaps for the purpose of this paper, it would be suffice to show the places where this violence erupted during the first ten days as documented by Bekker (2008) as follows: During the first period of ten days, starting on 10 May 2008, 61 violent events took place. 50 of these 61 events took place in Gauteng:

- Gauteng: Actonville, Alexandra township, Amakauwusi informal settlement, Benoni, Berea, Central Johannesburg, Choba informal settlement, Cleaveland informal settlement, Daveyton, Diepsloot informal settlement, Dikathole informal settlement, Dukathole informal settlement, Ext 5 informal settlement in Germiston, Ext 9 informal settlement in Germiston, Hillbrow, Jeppe, Jerusalem informal settlement, Joe Slovo informal settlement, Katlehong, Klipfontein View, Kopanong, Kya Sands informal settlement, Lusaka informal settlement, Makausi informal settlement, Malvern, Mandleni informal settlement, Marathon, Mashimong, Mayabuye, Mpilisweni, Olifantsfontein, Phiri, Ramaphosa, Reigerpark, Siyhalala informal settlement, Tedstoneville, Tembisa, Tshiavelo, Vosloorus, Vusimusi, Zamimpilo, Zandspruit informal settlement, Zenzele informal settlement .
- Western Cape: Fisantekraal, Malmesbury.
- Eastern Cape: Motherwell township, Walmer township.
- Northern Cape: Mafikeng.
- KwaZulu-Natal: Embalenhle, Cato Crest, Dalton.
- North West: Kanana [in Gauteng on the filing system list (at Tembisa Township, Jhb)].
- Mpumalanga: Lebohang ['Lebogang' on filing system list].

THE MPUMALANGA EXPERIENCE

Based on the above, the province did experience the xenophobic attacks on foreign nationals on minimal scale compared to the Gauteng Province. It further spread to areas like Balfour, Matsulu and Secunda just to mention a few. On news24 in 2009, it was reported that 20 foreign nationals sought safety in Balfour police station. The manner in which the attack on foreign nationals would start as a protest by communities against poor service delivery and translate to the looting of shops of foreign nationals and other criminal activities that would target the foreign nationals. For instance, in May 2008 at Embalenhle, the Evander police reported that two shops and a car belonging to a Somalian businessman had been burnt to ashes (www.iol.co.za). The fact of the matter is that violence results to criminal activities irrespective of the place where it is happening. The continuous community strikes on lack of or poor service delivery against government institutions and the strikes in the workplaces clearly shows that there is anger and frustration of the people of South Africa.

CONCLUSION

In conclusion, the researcher has observed that anger and frustration has resulted into aggressive behavior in this case. The South African society were frustrated because of their basic service-delivery needs were not met by the government. Furthermore, there were accusations that foreigners were involved in criminal activities, were responsible for high food prices, for taking jobs from locals, for seducing local women, and for occupying local RDP houses. It was the society's belief that foreign nationals have supernatural powers reflected in their ability to make money. Finally, it should be taken into consideration that that South Africa is striving to live according to the country's constitutional preamble which read thus; "We, the people of South Africa, recognize the injustice of our past; honour those who suffered for justice and freedom in our land; respect those who have worked to build and develop the country; and believe that South Africa belongs to all who live in it, united in our diversity!"

REFERENCES

Barash, J.D. And Webell, C. 2002. *Peace And Conflict Studies*. Washington, Sage Publishers.

Bekker, S., Eigelaar-Meets, I., Eva, G. And Poole, C. 2008. *Xenophobia And Violence In South Africa: A Desktop Study Of The Trends And A Scan Of Explanations Offered*. Stellenbosch, University Of Stellenbosch.

- Breen, D. And Nel, J.A. 2011. South Africa – A Home For All. *South African Crime Quarterly* No. 38. Institute For Security Studies, December 2011.
- Garbers, J.D. 1996. *Effective Research In The Human Sciences*. Cape Town, Van Schaik Publishers.
- Harries, B. 2001. A Foreign Experience: Violence, Crime And Xenophobia During South Africa's Transition. *Violence Transition Series*, Vol. 5. Braamfontein.
- Ladd, D.R. 2007. Psychological Self-Help – Anger And Aggression, *Vol. 104* No. 26, Pages 10944 – 10949.
- Morries, A. 1998. Our Fellow Africans Makes Our Lives Hell: The Life Of Congolese And Nigerians Living In Johannesburg. *Ethnic And Racial Studies*, Vol. 2 No. 6, Pages 1116 – 1136.
- Polzer, T. And Takabvirwa, K. 2010. Just Crime? Violence, Xenophobia And Crime: Discourse And Practice. *South African Crime Quarterly* No. 33. Institute For Security Studies, September 2010.
- Sign, S. 2011. Xenophobia And Crime: Foreign Nationals Awaiting Trials In A South African Prison. *South African Journal Of Criminology*, Vol. 24, No. 2.
- South Africa, 1996. *South African Constitution (Act 108 Of 1996)*. Pretoria. Government Printers.
- South African Human Rights Commission, 1998. *Illegal? Report On The Arrest And Detention Of Persons In Terms Of The Allies Control Act*. Johannesburg.
- South African Oxford School Dictionary*. 2008. Cape Town, Oxford University Press.
- Tshitereke, C. 1999. Xenophobia And Relative Deprivation. *Violence Transition Series*, Vol. 3, No. 2, Pages 4 – 5.
- www.Iol.Co.Za (Accessed 10/05/2013).
- www.News24.Co.Za (Accessed 10/05/2-13).

STAKEHOLDER VIEWS ON THE PRINCIPAL AS A MANAGER IN A SCHOOL PROJECT

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ABSTRACT

This study explores school stakeholder's perceptions on a school principal as a project manager in a school project in selected schools in Ngaka Modiri Molema District. Participants were 65 in all comprising 13 principals, 13 teachers and 39 parents who were school governing body members. There were 31 women and 34 men with ages ranging between 21 years and 55 years ($M = 35.4$; $SD = 9.6$). Participants indicated their views on a Likert type scale on views about the principal as project manager. As the scale was author developed, validity and reliability of scores from the scale are reported. Results indicated that three subscales emerged, where participants saw the school principal as (a) a project organiser (b), a project leader and (c) a project time manager. Further, in spite of the powers given by governmental authority, school stakeholders felt that principals should be project managers within schools. It is recommended that further studies should be conducted to determine the efficacy of the questionnaire used here in other contexts and samples.

INTRODUCTION

A project is a temporary endeavour undertaken to create a unique product, service, or result. Projects have a purpose. They also have clearly-defined aims and set out to produce clearly-defined results. Their purpose is to solve a "problem", and this involves analysing needs beforehand. Suggesting one or more solutions, a project aims at lasting social change. Project management is commonly associated with building big bridges, roads, railway lines and big dams. It is a phenomenon relating to activities that could be undertaken in a number of fields such as engineering, information technology, business, industrial processes and education. Project management may be defined as "... a methodical approach to planning and guiding project processes from start to finish ... the process guided through five stages: initiation, planning, executing, controlling and closing" (Project Management Institute, 2000, p. 134). Based on this definition, one may deduce that project management applies in many enterprises. For example in schools project management may be needed for the installing security system, starting a garden to alleviate hunger or building of a new laboratory or library. In implementing a project, it is apparent then that those who do this, should have necessary competency for the projects they undertake to succeed. The problems associated with project management notwithstanding, in South Africa legislation allows projects to be run within school context. In fact, the South African Schools Act 84 of 1996 (the Act) introduced governing bodies within schools and granted them the responsibility to oversee certain activities (Department of Education 1996). The main objective of the Act was to promote representative participation in schools. By establishing governance structures meant to contribute to the democratization of the country (Grant-Lewis, & Naidoo, 2004). In order to promote the representative participation, the Act dictated that parents should form majority of the governing body where one would take the chairmanship position in meetings while the principal would be an ex officio member (Department of Basic Education [DoBE], 2011). This Act effectively allows school governing bodies to be responsible for their schools' projects.

Theoretical Framework

Project management is a multistep process including planning, putting the project plan into action, and measuring progress and performance. It includes the identification of project requirements, establishing the objectives of the project, taming the restrictions, and keeping the expectations and requirements of the major

stakeholders in mind. **Project management**, then, is the application of knowledge, skills and techniques to execute projects effectively and efficiently. It's a strategic competency for organizations, enabling them to tie project results to business goals and thus, better compete in their markets. It brings together a set of tools and techniques performed by people to describe, organize, and monitor the work of project activities. It is the process of integrating everything that needs to be done as the project evolves through its life cycle in order to meet the project's objectives. This means that the project team should see to it that the project delivers what is expected. So the project team should have knowledge of the life cycle of a project since without that knowledge; the project may be derailed. Managing projects requires a great deal of time, skill, and finesse. There are many sides to project management and this is what makes it so interesting and demanding. What is required therefore is the project team's application of knowledge, skills, tools and techniques to project activities. Project management provides people with tools that can improve their ability to plan, implement and manage activities to accomplish specific organizational goals. It is also a goal-orientated management style that places a premium on building collaborative relationships among a diverse cast of characters. Project management is commonly associated with building big bridges, roads, railway lines and big dams. One needs to mention that project management can also be used for doing good deeds and solving problems social problems. This can be seen in a school situation whereby a school community takes on a project to build a new classroom, a school library, a school vegetable garden, a school laboratory, tiling of classrooms, fencing a school yard, renovating classrooms etc. Project managers are expected to take an uncertain event and make a certain promise to deliver. They are also expected to do this within a specified time and within a limited budget.

A project manager is a person who manages the project processes and applies the necessary tools and techniques to carry out the project's activities. Every project comprises of processes, even if it employs a slipshod approach. Project manager plans, schedules, motivates and control. They manage temporary, non-repetitive activities to complete a fixed life project. Project managers create a project team and organization where none existed before. They should decide what and how things should be done instead of simply managing set processes. They must meet challenges of each phase of the project life cycle, and even oversee the dissolution of their operation when the project is completed. They must work with a diverse troupe of characters to complete projects. They are typically the direct link to the customer and must manage the tension between customer expectations and what is feasible and reasonable. They provide direction, coordination and integration to the project team, which is often made up of part-time participants loyal to their functional sub-contractors who do not necessarily share their project allegiance (Atkinson, 1999). What is important therefore is for management to continuously support the project and ensure that staff makes it a priority until it is successfully completed. Regarding direction, if the project manager is not there to constantly give direction to the project, chances are that the project will not achieve the intended goals. What is important therefore is to stick to the initial project plan. About coordination, project coordination generally refers to planning and managing multiple tasks simultaneously. Coordination is essential for a business that deals with two or more related projects. A project coordinator often holds different roles and responsibilities, depending on the industry and the business size. It is important that those who commission a project should clearly spell out what they want. This is important because if that does not happen then those who are working on the project may produce what they think is required which in fact may be a misunderstanding because initial orders were vague. About integration, integration management is an element of project management that coordinates all aspects of a project (Project Management Institute [PMI], 1992).

Project integration, when properly performed, ensures that all processes in a project run smoothly. Integration management will produce a series of deliverables. These deliverables include the project charter, project plan, and preliminary project scope statement. A project cannot run on itself without staff members and all the necessary stakeholders taking serious interest in looking into whether the project is in line with what was initially envisaged (PMI, 2000). According to Morris (1994:25) project management is the process of integrating everything that needs to be done as the project evolves through its life cycle in order to meet the project's objectives. Here, this means that the project team should see to it that the project delivers what is expected. So the project team should have knowledge of the life cycle of a project since without that knowledge; the project may be derailed. The overall responsibility of the project manager is to achieve the project's objectives within the time, cost and quality, performance and any other constraints imposed by the sponsor (Gardiner, & Stewart 2000). The project manager has to work closely with the sponsor with respect to staffing requirements and funding availability. Such a person is responsible for completing the project on time, within budget and meeting the quality criteria and requirements. It is important for those who are in charge of projects to possess the

requisite skills to see these through. Skills are about “... an ability that can be developed which is manifested in performance ... an ability to translate knowledge into action” (Odusami 2002, p. 61).



Figure 1: Project management skills consist of the combined skills from these three areas (Adapted from Method 123: Empowering managers to succeed, 2013)

In fact it has been opined that project managers should be encouraged to work toward the development of leadership skills that “... include the ability to monitor and track project scope, project time, project cost, and project quality” (Sumner, Bock & Giamartino, 2006, p. 48). Further, it has been argued that when managers follow appropriate processes and utilize the correct tools and techniques then chances of project success will be high (Belzer 2001). The on-going responsibilities of the project managers includes among others that they must manage and influence the expectations of the key stakeholders, especially the project sponsor. They have to respond to the changing requirements of the project as it progresses through its life cycle. They have to serve as the principal point of contact between the sponsor, management and contributors. Such a person should understand the importance of organizational politics and how to make them work for project success Cleland (1986). They should keep the sponsor and senior management well informed of progress in all phases of the project and alert them to the problems especially if these could have an impact on the project achieving its business objectives. The project managers have to provide motivation and leadership skills throughout the project. They have to establish and develop teamwork between participants and convene and chair meetings as appropriate (Cornwall, Musyoki, & Pratt, 2001). Such people have to ensure that the project structure is working as intended and make or force timely decisions to ensure the project’s success. As a project manager one has to recommend termination of the project to the sponsor if necessary and also manage sub-contractors. They have to follow the known **Project Management Life Cycle**.

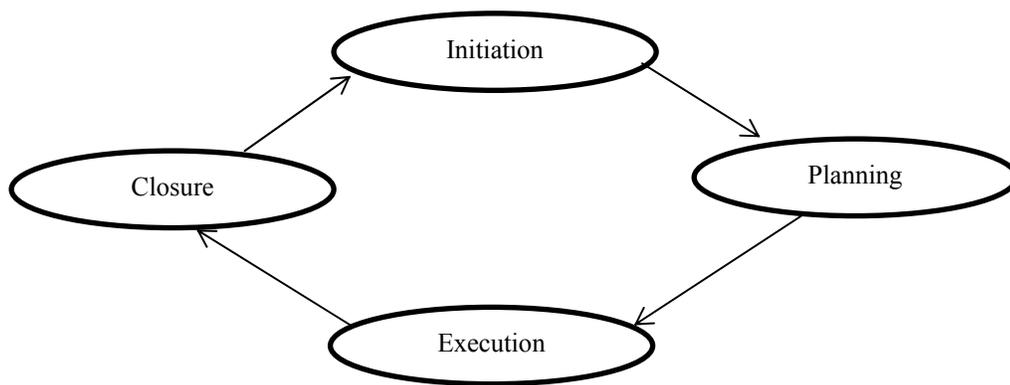


Figure 2: The Project Management Life Cycle (Adapted from Method 123: Empowering managers to succeed, 2013)

South African Context and Basis of the Study

The South African Schools Act (Department of Education, 1996) apportioned responsibilities to governing bodies to oversee certain activities within schools. This effectively allowed governing bodies “... to maintain and improve the school’s property, and buildings and grounds occupied by the school ...” (DoBE, 2011). So among other activities, governing parents were mandated to oversee the finances of schools. Governing bodies are “... democratically elected and reflect parent, educator, non-educator staff and, in secondary schools, learner constituencies. Parents have a majority stake in order to ensure ... a greater voice (Dieltiens, 2005, pp. 9 - 10).

This means that chairmanship of meetings is a role taken up by one of the parents with the principal serving as an *ex officio* member. Effectively the legislation was meant to enhance parental involvement and contribution to "... whole school development" (van Wyk, 2004, p. 50). In a sense, the legislation afforded governing bodies the ability to identify projects and work on accomplishing them. So, governing body members are expected to identify the tasks that the statutes allow them to provide leadership in (Knight, 1993). In a school situation, a project may involve building a perimeter wall, constructing additional classrooms or setting up and running a school garden. One important aspect in running a school project is making sure that it is completed successfully. Successful completion is a prerequisite in many ways because if a project fails that may impact negatively on the finances of the school. In a related manner it is argued that the process of managing a project "... revolves around good planning, organising, directing, and controlling resources for a relatively short-term objective" (Kerzner, 2009, p. 4). Also, if projects are to be successful it is important that they are undertaken by good teams led by competent leaders. An inherent problem with school governing bodies is that members have a three year office term. This may impact negatively on school projects. In fact it is argued that running school projects may be complicated by the fact that relationships "... must be renewed or re-established every three years when the new SGB is elected or sometimes even more frequently when there is a new principal in the school" (Heystek, 2004, p. 311).

In South African schools, as policy directive, one of the parents is effectively expected to assume the leadership role whenever a project is to be undertaken. For all intents and purposes however this is not the case. The fact of the matter is that governing bodies comprising selected teachers, students and parents do not necessarily possess the requisite skills to run school projects. About this matter it has been argued that "... a considerable proportion of teachers are not sufficiently qualified or trained and they lack the competences to either implement ... policies capably or take part in the decision-making processes in the school (Swanepoel, 2008, p. 42). Regarding parents in the school governing body meanwhile, other potential problems also persist. For instance, because of its historical past, South Africa has a majority of adults who are not educated. Mncube (2007, p. 129) for example lists some of the problems as "... the lack of clear demarcation between the roles of the teaching staff and those of the school governing body (SGB), lack of time, lack of confidence from some parents, ... lack of training which results in lack of knowledge of the Act and roles and responsibilities ..." It is the very adults, who as school governing body members are expected to be in charge of and lead projects at schools. From personal experience too, and in communicating with contemporaries, in most instances the leadership role in projects is not assumed by one of the parents. Our experience has shown that in most instances school projects are actually conceptualised, led and managed by the principal. In this study we wanted to determine the views of school stakeholders in respect of, who really assumes the role of project leader at schools? We felt that answering this question was significant for two reasons. First, the official (government) understanding is that parents are in charge. Providing a researched view would therefore give an indication of what pertains on the coal face so to speak. Second, we were of the view that poor parental education and experience was the main hindrance with respect to project running skills. This knowledge we argued would be valuable in ensuring that systems are put in place to train the parents for the roles they are expected to assume at schools.

METHOD

Participants

The targeted population comprised of teachers, principals and school governing body (SGB) members from one region of the North West province. The region has 128 schools including primary, middle and high schools. This means that there were 128 principals, about 1 500 teachers and approximately 750 SGB members. While the number of SGB members is for those still serving schools, in this study this number could be even more because past members were also included. So as long as a person had been an SGB member they were then considered as eligible for the purpose of this study. To select participants, simple random sampling was used. The first aim was to select a sample of approximately 10% of the schools in the population. The 10% was seen to be an ideal number considering that the population of 128 schools would in essence have meant that there were 2 378 eligible participants. That number of participants would be difficult to reach. In selecting the 10% of the schools a table of random numbers was used and 13 schools were finally included in the study. Specifically, each school was given a number ranging from 1 to 128. The numbers were then defined in the Research randomizer (2011)

which generated different sets, and set 5 was selected. In selecting the 13 schools, this meant that automatically the 13 principals were selected. In selecting teachers from each school, the researcher assigned numbers from 1 to n (where n was the number of teachers in a particular school) and the Research randomizer (2011) was used to select one. Three SGB members representing each school were also selected in a similar manner as the teachers. This means that the sample was made up of 65 participants, comprising 13 principals as well as 13 teachers and 39 SGB members. Participation by all individuals was voluntary because the purpose of the study was clearly explained to all possible participants. All questions and queries were addressed to their satisfaction. Examples of questions asked included (a) "... will you put my name in your report?" (b) "... will you report what I say to the department of education?" and so on. Following this process, it was indicated to the participants that if they so wished they could decline to participate. Those who consented to participate were then requested to sign a consent form.

Instrument and Procedure

In this study both qualitative and quantitative methods of collecting data were utilized. In essence this was a mixed methods study. It is averred that the goal "...of mixed methods research is not to replace either of these approaches but rather to draw from the strengths and minimize the weaknesses of both in single research studies ... " (Johnson, & Onwuegbuzie, 2004, pp. 14 - 15). In a similar vein, it has been pointed out that when the two methods are used in combination, the weakness of one could be balanced by the strength of the other (Breakwell & Millard, 1995). The aim of utilising both qualitative and quantitative methods here was to use these as some form of triangulating findings. This means that one method was used in some aspects of the study to verify and corroborate participants' assertions and views in the other method. A questionnaire comprising two sections was used to collect data. The first section requested the participants to provide biographical data in terms of age, gender, highest academic qualification and work experience. The second section determined the views of stakeholders on the principal as a school project manager.

RESULTS

Biographical Data

Participants were 65 teachers, principals and school governing body members. Table 2 shows the biographical data that the participants were requested to provide. It may be observed from the table that the majority of participants were men. Participants' ages ranged between 21 years and 55 years ($M = 35.4$; $SD = 9.6$). The table further reveals that the majority (56.9%) of the participants had completed either a diploma or a degree and higher. It is worth noticing that most of the teachers (53.8%) had teaching experience of 9 years or less. Where the teaching experience ranged between 5 years and 21 years ($M = 11$ years; $SD = 4.9$). With respect to SGB members, a majority (66.7%) had work experience of 15 years or more where experience ranged between 5 years and 22 years ($M = 14.3$ years; $SD = 5.4$).

Table 1: Biographical information of the participants (N = 65)

	Category	N	%
<i>Gender</i>	Women	31	47.7
	Men	34	52.3
<i>Age</i>	20 – 29	27	41.5
	30 – 39	13	20.0
	40 +	25	38.5
<i>Highest academic qualification</i>	Grade 12	28	43.1
	Diploma (e.g. Diploma in primary education)	22	33.8
	Degree or higher(e.g. B.A. or B.A. Honours)	15	23.1
<i>Position held in school</i>	Educator	13	20.0

Principal	13	20.0
School governing body member	39	60.0
<i>Teaching experience (Teachers)</i>		
5 – 9	14	53.8
10 – 14	4	15.4
15 - +	8	30.8
<i>Work experience (SGB Members)</i>		
5 – 9	13	33.3
10 – 14	6	15.4
15 - +	20	51.3

Deliberations on the Principal as a Project Manager in a School Project

In establishing the reliability of the views about the principal as a project manager (VPPM) Cronbach's (1951) alpha as a measure of the internal consistency of scores obtained from the scale was computed. To establish the validity of the VPPM two processes were followed. First the researcher requested three academics to provide expert opinion on the scale. Second, exploratory analysis was computed where the scale scores were subjected to a principal components analysis. Firstly, the internal consistency of scores from the questionnaire were determined and the value of alpha was found to be .75 [95% CI: $\alpha = .65 - \alpha = .83$]. This alpha value was adjudged to be fair since it is greater than .70 and less than .80 (Cicchetti, 1994). So participants' scores on the VPPM were adjudged to be reliable. Initially face validity was established by giving the VPPM scale to three academics. The researchers explained to the academics what the scale was developed for. Following this the researchers then requested the three to provide expert opinion on any issue they observed about the scale. The first recommended input was about changing the researchers' four point scale into a five point scale. Regarding this issue the researcher had four rating points for the scale namely, 4 = Strongly Agree, 3 = Agree, 2 = Disagree and 1 = Strongly Disagree. The academics suggested that a fifth rating point be added. The researcher duly added the rating point named 5 = I don't know. In the original scale the researchers had divided the questions into four areas each with its heading. In doing this, the researchers thought that the questions were about (a) project management, (b) principals' pressure from other duties, (c) the principal as a resource provider, and (d) the principal as a human resource manager. Regarding the four areas the researchers were advised to remove these. The academics argued that if principal components analysis was to be conducted then the headings should be derived from resulting factors. Finally, the academics requested a change in a few item statements. For example, an initial statement was: *The principal is often seen at the project site for checking on the project progress*. This statement was changed to read: *The principal frequently visits the project site to check on progress*. After all this process, the academics certified that they were happy with the resultant scale. In this instance face validity of the scale was accepted.

Content validity was further assessed through principal components analysis (PCA) which was computed with the aim of exploring the data. Firstly, a varimax rotated matrix with eigenvalues greater than unity indicated a five factor solution. This solution had a total explained variance of 68.1%. However an inspection of the resultant components for the five factors did not make theoretical sense. So the next step was to explore a four and a three factor solution. The three factor solution appeared to make better theoretical sense. Table 2 shows the structure coefficients of the three factor solution on views about principals on project management. The three factors had eigenvalues of 3.71, 2.67 and 1.93 respectively as well as accounted for 51.95% of the variability in the scores. It has been suggested that researchers should run reliability tests on all resultant factors before using them in subsequent analyses (Reynaldo & Santos, 1999). It was on this basis that a test of the internal consistency of the scores from each of the three factors was determined. The internal consistency scores of Factor 1 was .78 [95% CI: $\alpha = .69 - \alpha = .85$], for Factor 2 it was .72 [95% CI: $\alpha = .61 - \alpha = .81$] and for Factor 3 it was .69 [95% CI: $\alpha = .57 - \alpha = .79$]. So in essence the three factors were found to be fair and acceptable (Cicchetti, 1994). Because the three factor solution had reliable scores from the scale, content validity was also accepted based on findings of the exploratory analysis.

Table 2: Structure coefficients from principal components analysis of the views about principals on project management functions, three-factor model (N = 65)

Factor

	1	2	3
1. Assists new workers on the project with his knowledge	.824		
2. The principal ensures that there is a conducive atmosphere for the project to be a success	.738		
3. The principal is considered as the most important part of the project	.663		
4. The principal organizes enough funds well on time for the smooth running of the project	.654		
5. The principal is knowledgeable about project management and channel all resources towards efficient and effective use in a project	.563		
6. The principal provides meaningful staff development opportunities (workshops and in-service training on project management)	.503		
7. The principal has a good understanding of what project management is all about		.769	
8. The principal is able to advise other stakeholders on related project issues		.737	
9. The principal is readily accepted as the project manager by members of the project team		.713	
10. The principal frequently visits the project site to check on progress		.633	
11. The principal is able to observe the project and give feedback to all stakeholders (at least on monthly basis)		.539	
12. Unscheduled visits by members of the Department of education officials and parents often disrupts the principal's plans			.784
13. The principal's activities are thorough and the project does not interfere with his daily schedules			.775
14. The principal's office is often flooded by educators and learners' matters hence taking his project management time			.738
15. Promotes quality in the project at all times			.521
16. Attends to project worker's problems promptly and objectively			.326
α	.78	.72	.69
Eigenvalues	3.7	2.7	1.9
Variance (%)	23.2	16.7	12.0

Views about the Principal as a Project Manager

An inspection of the items from principal components analysis led the researcher into naming the factors in terms of the principal as: *a project organiser* (Factor 1, six items), *a project leader* (Factor 2, five items) and *a project time manager* (Factor 3, five items) of project management activities. The analysis of the views about the principal on project management, were based on the three established factors.

The principal as a project Organiser

Table 3 shows the measures of central tendency and the standard deviations of the items statement relating to the principal as a project organiser. The table shows that the responses were consistently clustering around a score of four.

Table 3: Measures of central tendency and standard deviations relating to the six items of the principal as a project organiser (N = 65)

	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6
No response	5	5	5	5	5	
Mean	4.20	4.33	4.13	4.13	4.13	4.12
Median	4.00	4.00	4.00	4.00	4.00	4.00
Mode	4	4	4	4	5	4
SD	1.08	.68	1.00	.91	1.02	.94

In all the six item statements, a majority of participants agreed or strongly agreed that the principal was a project organiser. As an illustration of this contention, Figure 3 provides a rating of the item statement: *The principal*

provides meaningful staff development opportunities (workshops and in-service training on project management). It is observable from the figure that 86.7% were of the view that the principal was a project organiser.

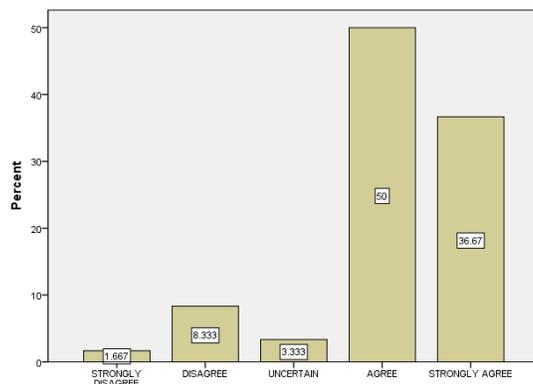


Figure 3: Percentage distributions of participants on an item about the principal as a project organiser

Table 4 shows the measures of central tendency and the standard deviations of the items statement relating to the principal as a project leader. Similarly as in the previous instance Table 4 shows that the measures of central tendency were around a score of four. In all the five item statements, a majority of participants indicated that they agreed or strongly agreed that the principal was a project leader.

Table 4: Measures of central tendency and standard deviations relating to the five items of the principal as a project leader (N = 65)

	Item 1	Item 2	Item 3	Item 4	Item 5
No response	5	5	6	6	5
Mean	3.90	4.43	4.07	4.31	4.33
Median	4.00	5.00	4.00	4.00	4.50
Mode	4	5	4	5	5
SD	1.10	.72	1.10	.91	.86

Table 5 shows the measures of central tendency and the standard deviations of the items statement relating to the principal as a project time manager. The table shows that the responses were consistently clustering around a score of four. In all the five item statements, a majority of participants agreed or strongly agreed that the principal was a project time manager.

Table 5: Measures of central tendency and standard deviations relating to the five items of the principal as a project time manager (N = 65)

	Item 1	Item 2	Item 3	Item 4	Item 5
No response	5	5	5	5	5
Mean	3.85	3.70	3.83	4.20	4.12
Median	4.00	4.00	4.00	4.00	4.00
Mode	4	4	4	4	4
SD	1.26	1.25	1.25	.99	.92

As an illustration of this view, Figure 5 provides a rating of the item statement: *The principal's office is often flooded by educators and learners' matters hence taking his project management time.* It is observable from the figure that 75.0% were of the view that the principal was a project time manager.

DISCUSSION

The results presented here have shown that the participants were relatively mature individuals most of whom (58.5%) were 30 years or older. They were fairly educated with 56.9% in possession of a diploma or higher qualification. Also, 58.5% had good work experience because they reported that they had been working for 10

years or more. The interviewees were asked, “What is your view of the principal as a school project manager?” Here the interviewees saw the principal as an ideal person to manage school projects on two accounts. In the first argument the interviewees indicated principals are leaders so the responsibility for projects must be with them. The second argument endorsing principals as school project managers was based on the fact that they were the representatives of the department of education where they were. Excerpts from the interviews illustrate this. For example Respondent 17 answered the question by stating: “...the principal as the head of the school has to be the project manager in her school ...because the principal is seen as a manager in the school, therefore no one is seen to have as much authority as the principal. It is therefore the principal’s call to be the project manager”. Respondent 24 supported Respondent 37 sentiments by stating that: “...principals are project managers in their schools because they are the leaders ... the principal is viewed as the ‘department on the spot’ ... he is the one who looks into the interest of the department, therefore no one else should be the project manager in the school than the principal”. Similarly Respondent 47 stated “...principals have love for their schools ... know the mission and vision of their school and they are at the school to see to it that everything in the school is implemented. It is therefore very important that the principal becomes the manager of the school projects”.

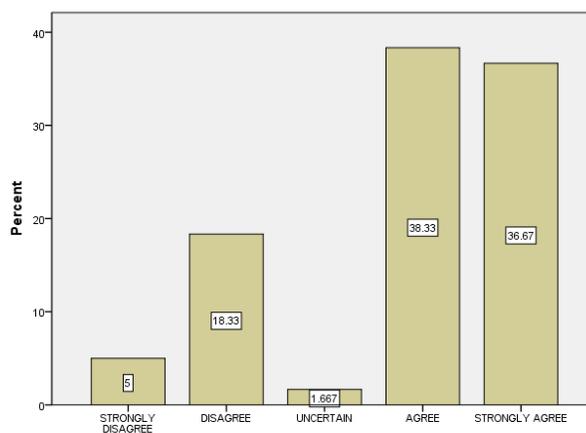


Figure 4: Percentage distributions of participants on an item about the principal as a project leader

On the issue of the projects managed by principals achieving desired outcomes, the interviewees were asked, “Regarding projects managed by your principal, were the desired outcomes achieved?” Here a mixture of responses was received. In some instances the desired outcomes were achieved while in others they were not. The following excerpts illustrate this. To contextualise her answer, Respondent 15 talked about poverty around the school. In this regard she mentioned how learners came to school hungry leading to a project to start a school garden. She then intimated, “...the desired outcomes were reached since our learners got fresh products from our garden ... we then had a new fence and a house.” Asked what the house was for, she revealed “... for an educator to live in because we wanted him to guard the garden and the school premises.” On the other hand, Respondent 18 indicated: “No.” On further probing he related an instance where the school was to build a science laboratory. He reported “... the project did not achieve its desired outcomes ... we ran out of funds ...it was also taking too long to complete the laboratory”. He was then asked what he thought was the reason things happened this way? His response was “I don’t think everybody had experience on the budget and how long the project would take.” It was also reiterated in the face-to-face interviews here that principals were inclusive when dealing with project management issues. It was further reported that desired outcomes of projects were achieved in some instances while in others they were not achieved. Respondents also indicated that it did not matter if team members did not have a clue about project management. In fact they felt it was the duty of the principal to teach other project management members. The latter view about the principal is perhaps the reason some projects were reported to fail. Most importantly, this view goes against project management functions that include conducting a feasibility study, good communication, and risk management for example. It has been argued here that when these functions are not addressed the likelihood of the failure of projects gets enhanced. This study in a way has inherently illustrated how stakeholders believe that principals should be responsible for the management of projects in their schools. The fact of the matter though is that principals, educators and SGB members do not necessarily possess the requisite skills to run projects. In fact, schools of education or even the department of education do not provide pre-service or in-service training for those charged with overseeing

projects in schools. The researchers therefore are of the view that the guidelines recommended from this study will be invaluable to (a) education authorities, (b) school principals who in general are project leaders and (c) SGB members who should not be assumed to know all processes within schools because the law affords them the right to be part of these.

The main authorities in this study were identified to be the department of education and universities' departments of education. The Department of Basic Education (DoBE) should prepare lifelong learning programs geared to assist the stakeholders in running projects at school. The DoBE may introduce in-service training meant to provide skills to all those who are already in the field. This also suggests that whenever parents become SGB members they will have to attend such in-service training. The expectation here is that the department needs to budget for and organise all the necessary arrangements including the expertise to run the training. The DoBE may advise departments of education within universities to introduce modules that address issues relating to running projects at schools. In essence the universities may offer for instance an Advanced Certificate in Education (ACE) with specialisation in school project management. It is important therefore that the training and skilling of the principals should also be incentivised in order to encourage them to participate in school projects. The results of this study notwithstanding, some suggestions for further research are provided. This study was conducted in one district in the North West province. It would be interesting to determine whether similar findings would be established in other districts or in other provinces. Such findings will be important in endorsing what has been reported here and helping in building the knowledge base in this area. In this study reliability and content validity of the views about the principal as a project manager was reported. It would be useful to determine whether similar findings as reported here for reliability and validity, would be attained in other contexts. Using exploratory factor analysis it was reported that participants saw the principal as a project (a) organiser (b) leader, and (c) time manager. It is suggested that further research should be conducted to see if these three variables will still be identifiable.

Limitations

It has to be stated that even if the sample of this study was randomly selected, the results presented here are in no way meant to be generalised to all schools in the North West province for instance. This is said since we are mindful of the fact that schools may be in the same province but conditions in those schools cannot be the same. With hindsight the researchers feel that it would have added value to have interviewed the participants. The researchers acknowledge this as a limitation because interviews may have illustrated what participants exactly meant in reporting that... *the principal is viewed as the 'department on the spot'* ...for example. It is worth pointing out that project management is a vast field of study on its own hence this paper may not be seen as comprehensive in any way. Because of this, the researchers' aim was to illustrate how complex project management is and it was therefore important that such an endeavour be left to the school principal since he is more knowledgeable than other SGB members.

REFERENCES

- Atkinson, R. (1999). Project management: Cost, time and quality, two best guesses and a phenomenon, its time to accept other success criteria. *International Journal of Project Management*, 17 (6), 337 – 42.
- Breakwell, G., & Millard, L. (1995). *Basic evaluation methods: Analysing performance, practice and procedure*. Leicester: The British Psychological Society.
- Cicchetti, D. V. (1994). Guidelines, criteria and rules of thumb for evaluating normed and standardized assessment instruments in psychology. *Psychological Assessment*, 6, 284 – 290.
- Cleland, D. I. (1986). Project stakeholder management. *Project Management Journal*, 17 (4), 36 - 44.
- Cornwall, A., Musyoki, S., & Pratt, G. (2001). *In Search of a New Impetus: Practitioners' Reflections on PRA and Participation in Kenya*. IDS Working Paper 131, Sussex, UK: Institute of Development Studies.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297 – 334.

Department of Basic Education (2011). *Basic Education Laws Amendments Act 15 of 2011 of the South African Schools Act No. 84 of 1996*. Pretoria: Government Printers.

Gardiner, P. D., & Stewart, K. (2000). Revisiting the golden triangle of cost, time and quality: the role of NPV in project control, success and failure. *International Journal of project management*, 18 (4), 251 - 256.

Grant-Lewis, S. & Naidoo, J. (2004). Whose theory of participation? School governance policy and practice in South Africa. *Current Issues in Comparative Education*, 6 (2), 100 – 112.

Heystek, J. (2004). School governing bodies - the principal's burden or the light of his/her life? *South African Journal of Education*, 24 (4), 308 – 312

Johnson, R. B. & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher*, 33 (7), 14 – 26.

Kerzner, H. (2009). *Project management: A systems approach to planning, scheduling, and controlling*. Hoboken, NJ: John Wiley & Sons, Inc.

Knight, B. (1993). *Financial Management for Schools*. Oxford, England: Heineman.

Method 123: Empowering managers to succeed, (2013). Project management life cycle. Retrieved March 19, 2013, from <http://www.method123.com/project-lifecycle.php>

Mncube, V. S. (2007). Social Justice, Policy and Parents' Understanding of their Voice in School Governing Bodies in South Africa. *Journal of Educational Administration and History*, 39 (2), 129 – 143.

Morris, P. W. G. (1994). *The management of projects*. London: Thomas Telford.

Odusami, K. T. (2002). Perceptions of construction professionals concerning important skills of effective project leaders. *Journal of Management in Engineering*, 18 (2), 61 – 67.

Project Management Institute, (1992). *Project management body of knowledge (PMBOK)*. Upper Darby, PA: Project Management Institute.

Project Management Institute, (2000). *Guide to project management body of knowledge*. Upper Darby, PA: Project Management Institute.

Research randomizer (2011). Retrieved June 17, 2011, from <http://www.randomizer.org>.

Reynaldo, J. & Santos, A. (1999). Cronbach's alpha: A tool for assessing the reliability of scales. 37 (2). Retrieved July 23, 2011, from <http://www.joe.org/joe/1999april/tt3.php?ref=Klasistanbul.com>

Sumner, M., Bock, D., & Giamartino, G. (2006). *Information Systems Management*, 23 (4), 43 – 49.

Swanepoel, C. (2008). The perceptions of teachers and school principals of each other's disposition towards teacher involvement in school reform. *South African Journal of Education*, 28 (3), 39 – 51.

van Wyk, N. (2004). School governing bodies: the experiences of South African educators. *South African Journal of Education* 24 (1), 49 – 54.

IDENTIFYING COMMUNITIES FOR DEVELOPMENT IN POST SOUTH AFRICA: MISSING THE TARGET

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ABSTRACT

The purpose of this paper is to demonstrate that in its developmental approach, the South African government uses a “one- size- fits- all” approach to communities without considering the differences in community characteristics. South Africa has since post 1994 experienced a variety of unrest in which communities demonstrated their concerns and dissatisfactions about service delivery while others were dissatisfied about the municipal jurisdictions and boarders. The State has defined itself to be a developmental state that seeks to work together with communities for the realisation of its development objectives. Communities are heterogeneous; as such a single approach by government to address development issues in communities with different characteristics creates a confusion of their targeted clients. Community participation and identification of a community for development are requisites to the realisation of the expected development. One of the responsibilities of the local government is to provide services to the community and to encourage community participation in order to achieve the required development. This paper argues that South Africa has since its democratic dispensation failed to identify communities for development and it also emphasises the importance of defining and identifying communities for the realisation of the expected development.

Key words: Community, Community participation, Local government, Development

INTRODUCTION

According to Blair (2000) the promise of local government is that by building popular participation and accountability into local governance, the local government will be responsive to the needs of the communities and improve its service delivery. In South Africa the different spheres of government (namely national, provincial and local government) were established each with its distinctive and interrelated responsibilities. It is a legal requirement that municipalities involve communities in the affairs of local government. Thus, Section 152 of the Constitution of the Republic South Africa 1996 and Municipal System Act 32 of 2000 confirm the rights of communities to be involved in local governance by encouraging the involvement of communities and community organisations in the matters of local government. In fulfilling this constitutional responsibility, section 16(1) of the South African Municipal Systems Act 32 of 2000 requires each municipality to develop a culture of municipal governance that complements formal representative government with a system of participatory governance. This system of participatory governance serves to encourage and create conditions for local communities to participate in the affairs of the municipality. Section 153 of the Constitution of the Republic of South Africa, 1996 states that “a municipality must structure and manage its administration and budgeting and planning processes to give priority to the basic needs of the community and to promote the social and economic development of the community”. Therefore, the responsibility of promoting community participation and local socio-economic development lies with local municipalities.

Blair (2000) states that local government is regarded as a meaningful authority given to local units of governance so that they are accessible and accountable to the communities, who enjoy political rights and freedom to participate in the issues of local government. Blair (2000); Gaventa (2002) and Devas & Grant (2003) continue to indicate that local government has a number of responsibilities which are accountability, promote community participation, and performance in service delivery. Based on the above point, it is important

for the local government to identify the type of community they are accountable to, so that they can be able to respond to the needs of the local communities.

According to Davids, Theron and Maphunye (2005) community participation is an essential part of human growth, which is the development of self-confidence, pride, initiative, responsibility and cooperation. Theron (2008) and Todaro (2006) state that participation is a means to further human capabilities and other goals of development. Therefore, it can be confidently argued that community participation is a backbone of making any development endeavor a success and at the same time a means of empowering and investing in communities. Tosun (2000) argue that the involvement of the public in a developmental process has two considerations, which are philosophical and pragmatic. The philosophical consideration is related to the political theories of democracy that people have the right to be involved and allowed to make their views heard to the decision makers on matters affecting their lives. Whereas the pragmatic considerations are related to the failure of plans and decision making process which could not correctly determine and identify the development needs of the community. A philosophical consideration therefore emphasises the importance of community identification in the quest of responding to the development needs and expectation of the local communities. The purpose of this paper is to demonstrate that in its developmental approach, the South African government uses one- size- fits- all approach to communities without considering the differences in community characteristics. That is the government employs the same approach to address development issues in communities with different characteristics and different development issues. It is against this background that this paper argues that South Africa has since its democratic dispensation failed to correctly identify communities for development and it emphasises the importance of defining and identifying communities for the realisation of the expected development.

THE CONCEPT OF COMMUNITY PARTICIPATION

Community participation as a concept is significant in order to understand its importance and the hindrances to successful community participation. Community participation is accepted and supported by many scholars such as Davis *et.al* (2005); Tosun (2005); Nyaupane, Morais & Dowler *et.al* (2006) and Redzuan & Aref (2008) as a strategy for development. However, these scholars also content that there are different interpretations, terms and processes used to clearly state what community participation is, and consequently, this implies that there is no agreement and a commonly shared definition among these scholars on what community participation means.

According to Redzuan and Aref (2008) the level of participation's influence and control of decision-making, actions and outcomes can however serve as key to different description of community participation. Aucamp (2009) states that the levels of participation differ widely according to the nature of the intervention and the knowledge and abilities of those affected by the activities taking place. On the contrary, Tosun (2005) argue that the absence of a standardised and formal processes and procedures to community participation maybe desirable, since the attempts to have these procedures and processes have proved to severely limit the flexibility needed in the development process. Redzuan & Aref (2008) and Aucamp (2008) state that even though there are no formal procedures and processes that should be set for community participation, but it is necessary to have a category as stated that the level of participation and influence of the participants may help in describing to a certain level what community participation entails.

Since community participation is regarded as an ambiguous and a vague concept, it is recommended that each researcher define community participation to suit their study and the sector in which they are discussing community participation. Therefore for the purpose of this paper, the definition which will be adopted is the ones by Tosun (2005) and Redzuan & Aref (2008) which perceive community participation to be, a process whereby the residents of a community are given a voice and a choice to participate in issues affecting their lives. According to the above definitions it can be asserted that community participation as a tool and strategy exists to encourage communities to be in charge of the development processes and activities taking place in their areas by deciding on how they want their resources to be used for their own development.

STATUTORY FRAMEWORK FOR COMMUNITY PARTICIPATION IN SOUTH AFRICA

In an attempt to operationalise community participation, South Africa has legislation to support the manner in which community members can with government process. South Africa has a well-established policy and legal framework for community participation and empowerment. Section 152 of the Constitution of the Republic of South Africa of 1996 sets out the directives and objectives of local government which are as follows:

- To provide democratic and accountable government for local communities;
- To ensure the provision of services to communities in a sustainable manner;
- To promote social economic development;
- To promote a safe and healthy environment; and
- To encourage the involvement of communities and community organisations in the matters of local government

DPLG (2009) clearly states that municipalities have a legal obligation to encourage community participation in the local government issues, how the municipality operates and functions. The White Paper on Local Government of 1998 in the quest of encouraging community participation, states that participation by communities has to be encouraged at four levels which are:

- As voters, to ensure maximum democratic accountability of the elected political leadership for the policies they are empowered to promote. This point relates to political participation where community members are encouraged to participate as voters or members of organised political structures.
- As citizens who express, via different stakeholder associations, their views before, during and after the policy development process in order to ensure that policies reflect community preferences as far as possible. Communities are encouraged to participate through organised community organisations in processes of policy development which will affect their lives if approved implemented.
- As consumers and end-users, who expect value-for-money, affordable services and courteous and responsive services. Community members are encouraged to voice out their concerns on issues of service delivery and development since they are the end users of the services provided by the local government.
- As organised partners involved in the mobilisation of resources for development via business, non-governmental organisations and community based institutions. This element encourages community members to participate through organised and recognised community organisations, non-governmental organisations and through institutional channels of participation such as IDPs to participate in development processes affecting their lives.

It can be said that there is enough legislation set to specifically address the issue of community participation and to encourage communities to participate in the issues of development and local governance which affect their lives. The provision for legislation on community participation has been set to accommodate all community members and community organisations within the municipal borders at different levels.

THE CONSTRAINTS OF COMMUNITY PARTICIPATION

South Africa has good legislation available to encourage communities to participate in development initiatives. However, despite the available legislation, there are constraints which need to be dealt with for improved community participation. Even though community participation is highly recommended and desirable by its proponents it has its constraints and barriers which need to be dealt with to make it a success. Gaventa and Valderrama (1999) point out that the gap between the promises of improved community participation through local government and the everyday realities of the politics of participation necessitates the need to understand the constraints and dynamics to community participation in the local governance.

Power relations

Community participation in most cases is more about power and the influence of the social actors, where those who occupy higher positions in the community, in government and politics get invited to community meetings where important decisions will be made on behalf of all the communities. For example Devas & Grant (2003) and Gaventa & Valderrama (1999) state that control by the government over decisions and about the nature and structure of participatory channels at the local level restricts the influence of the traditional decision-making bodies in the local affairs. McEwan (2002) in her study "*Bringing government to the people*": *Women, local*

governance and community participation in South Africa” indicates that evidence of elite co-operation exist in Cape Town in areas like Kommatjie, where affluent people are heavily involved in the local forums and they control the direction of resource use.

Participatory skills

Participation by community members to some extent requires some level of participatory skill as participatory processes become more complex and requires different type of skills such as knowledge, experience, leadership, and managerial capabilities. This barrier also relate to issues of local communities not receiving support from researchers, government departments and institutions within the communities. Tosun (2005) asks a question which if not answered it will always be a barrier to community participation, “Do the community members have the motivation and are they ready to participate in the process of development?” The lack of participatory skills by community members affect their confidence and as such they end up abandoning their responsibility of participating in issues of development which at the end are the ones affected and live with the decisions taken. Gaventa and Valderrama (1999) for example emphasised the importance of having some level of skills in participation by indicating that “the inability of local government officers to translate local needs into technical proposals of high quality standards provided and excuse for bureaucrats in higher levels of administration to disregard district plan on the situations where local communities have provided their inputs.

Political will

Problems over political alignment are evident in Cape Town where Community Based Organisations in townships such as women’s groups and residents’ associations have found themselves at loggerheads with the local council because of their political affiliations. Despite the formal channels of participation in place and open for all community members and the community organisations no approval for projects can get through the “other” party dominated council (McEwan 2002). Gaventa and Valderrama (1999) argue that the absence of a strong and determined authority in providing opportunities for community participation at the local level, as well as the lack of political will by local government officials to enforce the legislation that has been created for the purpose of enhancing community participation retard and hinder the process of community participation.

Lack of consultation from the side of local government

According Stiglitz (2002) participatory processes must entail open dialogue and active community participation and requires that communities have a voice in the development decisions that affect them. McEwan (2002) in the interview with the representatives of the South African Civic Organisation in Langa Township in Cape Town indicates that it became clear that the relationship between the civic organisations and local government is problematic and hinders the socio-economic development process. The local government often does not consult with the civic structures which represent a large number of community members, especially women, and does not recognise the role of Community Based Organisations which are accused of being anti-development.

The level of participation

Strengthening participation in local governance requires the strengthening of direct community involvement in decision making by communities in development processes, through institutional channels of participation in place such as Integrated Development Planning (IDP) forums and ward committees. Even though these channels of participation are in place, and there is also legislation that encourages community participation through organised community organisations these channels are not being used by the local communities. (Nyaupane *et.al* 2006). Agrawal & Gibson (1999) believe that one element that makes community participation to be a success is their common interests and shared norms, but at the same time they too can become a constraint where norms become an obstacle to those interested in participating in development processes such as women and youth because of their social standing in their communities.

Insufficient financial resources at the local

A common barrier for community participation in decision making found in many studies such as *Participation, Citizen and Local Government by Gaventa and Valderrama (1999)* was the control of financial resources by higher levels of authority and the minimal resources available for local activities. Lowndes, Pratchett & Stoker (2001) and Redzuan and Aref (2008) identified lack of financial resources, lack of trained human resources and high cost of participation as one of the barriers of community participation. Nyaupane *et.al* (2006) supports the above statement by indicating that local communities may not have the investment knowhow or even the infrastructure necessary to take on the initiatives in development processes. This means that even if there can be a high level of participation of communities in decision making processes, but resources be owned by the few elite or by external forces, community participation will have minimal or no impact in terms of economic development.

WHAT MAKES THE COMMUNITY?

Barnett & Crowther (1998) states that the concept of community is elusive, for example, he indicates that Hillary (1955) listed 94 definitions of community whose common denominator was that they all dealt with people. Bell & Newby (1971) hold that community is a “God word” and has at times escaped the intellectual rigour, being perceived either as a lost ideal past or as a future to be aspired to”. Agrawal & Gibson (1999); Billings (2000) and Blaikie (2006) hold that the concept of community is the source of much debate in literature and it is rarely defined with precision. Flint, Luloff & Finley (2008) state that communities can rarely be characterised as homogeneous groups of likeminded people. Community arises through concerted actions of locals who are tied to a place by their shared values, concerns, interests and actions. Flint, Luloff & Finley (2008) assert that community is conceptualised as a process of place oriented social interactions that express shared interests among residents of a local society and are expressed in prevailing local narratives.

Based on the above deliberations it can be concluded that the concept of community goes beyond being understood in geographical aspects only, but rather be understood as a concept that encompasses a number of characteristics which among others include: emotions; culture; shared norms and values; religion; ethnicity and different actors sharing the same territory. It is important to indicate that the definition in this regard defines a community as people sharing a physical space, and to some extent sharing the same values and interests. Based on the complex nature of the concept of community, it is therefore critical for the government to have a model and a system in place which will enable them to identify communities for development.

IDENTIFYING COMMUNITIES FOR DEVELOPMENT

The concept of community is complex and vague, as such, it is critical for the government to identify communities for development. In its quest to improve community participation, South Africa has a formal legislation to support the process of community participation, and for this to be realised, a need to identify a community for development becomes very important. The Constitution of the Republic of South Africa of 1996 recognises and defines communities in the confined of a geographical setting or location. The position of the Constitution about the community puts municipalities in a very difficult position since communities are not and cannot be defined only using the geographical or territorial limit only, but should also recognise the different characteristics within a particular community. Agrawal & Gibson (1999) and Blaikie (2006) indicate that community needs to be understood in three aspects which are: community as a spatial unit; as a homogeneous social structure; and as a set of shared norms. The White Paper on Local Government of 1998 requires active participation by communities at four levels namely as voters; as citizens; as consumers; as well as organised partners (*Supra* 3). Section 16(1) of the South African Municipal Systems Act 32 of 2000 requires each municipality to develop a culture of municipal governance that complements formal representative government with a system of participatory governance.

MODEL(S) OF COMMUNITY IDENTIFICATION

Communities are a complex system and a complex term to defined and understood. But, at the same time are very crucial for community participation and development initiatives to be realized. For development initiatives and community participation to be realized, a community for development needs to be identified and defined. Government is faced with a challenge of identifying a community so as to provide services to the relevant communities. There is therefore a need to recommend and identify a model(s) for community identification which will enable the government to identify communities for development and to provide services to the relevant communities. Three models of community identification will be discussed below, which are Locality Development, Social Planning and Policy Change and Social Action and System Advocacy.

Social Planning and Policy Change- is orientated towards policy solutions, changing or passing laws or regulations to address problems or conditions such as development problems. Particularly those problems which are identified by officials or leaders from within the community or outside the community. These policies should be determined through a participatory process that involves everyone who will benefit from the policies or will be affected by the policies. This model often involves people with expertise from outside the community working with the community members on the strategy and planning (Buckley 2012; and Berkowitz 2013).

Social Action and System Advocacy- this model is based on the assumption that there is strength in numbers. By banding together and taking action, ordinary people gain political and economic power to create change. Social action is often important and mostly used where serious inequity exists and there is no will on the part of those in power to correct the situation. The group disadvantaged by a situation, through a collective action, can gain and exercise power and bring about a more equitable distribution of official attention and resources (Berkowitz 2013).

Locality Development- it serves as a base for organising and is often aimed at community-wide issues that affect everyone, such as development challenges. To be effective, Locality Development process should be inclusive and participatory, that is, all sectors of the community should be included as full participants in all phases of addressing community issues and working towards achieving a common goal and a better life. The Locality Development approach assumes that communities are not the same, but diverse. Diversity here refers to more than skin color and background; it encompasses different opinions, political stances, income, attitudes and many more factors that make communities to be diverse (Hardcastle & Powers 2004; and Berkowitz 2013).

FACTORS TO BE CONSIDERED WHEN IDENTIFYING A COMMUNITY

Community situations are unique; some situations affect some segments of the community, whereas in some cases situations affect all members of the community. Thus, it is important to identify a community which is or will be affected by a situation and respond to the situation and to the relevant communities. Locality Development is an inclusive process and who to be included in a particular identified community for a development intervention is determined by the situation or the problem at hand. To identify a community, Locality Development Approach recommends the following:

- Interest in the effort or intervention- government need to identify a specific segment of the community which is interested in a particular development intervention;
- Demographic profile of a community such as age, race, gender, ethnicity, language, religion; income-demographic profile is very important since it allows the government to understand the type of communities they are dealing, their background and sometimes it could even allow them to understand the development challenges communities are facing;
- Geography which may include different people from different communities, but form one ward- a situation may affect different people from different communities, for example, in South Africa there are wards which are made of number of communities, it is important to also consider the geographic area of the people who are or will be affected by the development intervention;
- Class identification- is a matter of attitudes, personal history and factors such as income and social standing in the community. This element helps to understand the type of people the local government is dealing with, their perceptions of development initiatives taking place and also the influence they may have in the community;

- Culture- it may be linked to the ethnic or racial background and how the community believe in doing things; and
- Organisations and institutions- within communities there are various institutions and organisations such as NGOs, churches, hospitals, universities and political organisations which should be considered when identifying a community since they may have a certain influence and even resources and knowledge for the success of the development initiatives (Hardcastle & Powers 2004, and Berkowitz 2013).

STEPS TO LOCALITY DEVELOPMENT

To identify and understand a community, local government can follow the suggested steps below.

- Get to know the community; identify the reasons that the community is willing to organise; recruit community members to the effort or intervention; build a communication plan; encourage leadership from the community from the beginning; create a structure to help the community accomplish its goals; define the most important issues that relate to the community's overall concerns; develop a strategic plan; implement the plan; and continually evaluate and monitor the work (Hardcastle & Powers 2004, and Berkowitz 2013).

The above steps emphasises the importance of understanding the community by understanding their history, how community members relate to one another, to establish a common ground in the community which will bring the community to work together as a collective. The steps also indicate the importance of having a communication system which will enhance the relationships among the community members and make an effort that the development initiative is owned by the community, which will create a sense of ownership in the communities and boost their confidence in the system.

Locality development is a facet of community organising which its emphasis is on building an infrastructure of relationships, processes and systems that makes it possible for the community to solve its own problems and respond to its own needs through planning, action and advocacy; Social planning and policy change use the political and other systems to create policies that work towards improving the quality of life for all citizens; and Social action and systems advocacy engages citizens in understanding and building power, and using it to advocate and negotiate for the interests of the community needs (Hardcastle & Powers 2004, Buckley 2012 and Berkowitz 2013. Based from the above discussed models of community identification, Locality Development approach is a recommended approach for the government to use to identify communities for development, mainly because it provides a methodology to be followed when identifying a community for development. It is also relevant to address issues that affect the community at large; it is an inclusive process that encourages active participation by all members of the communities who will benefit or be affected by the intervention.

CONCLUSION

Local government is a sphere of government that is closer to the people and charged with the responsibility of promoting community participation. For the local government to be able to act on its mandate of encouraging community participation, it is important that the local government define the kind of community they serve. Government should be in a position to state clearly if they serve people who they define as voters who hold the local government accountable to promote policies they are elected to promote and placed the government in power; as citizens or organised community organisations who have a say in how policies should be developed and implemented; as consumers and end-users who expect value-for-money, affordable and responsive services, who are able to voice their concerns on issues of service delivery if they are not satisfied; and finally communities as organised partners involved in mobilisation of resources for development via businesses, NGOs, and community based institutions and participating through institutional channels of participation in place such ward meetings and Integrated Development Planning processes. For the government to be able to identify a community for development, Locality Development model can be used to help with that process and enable government to respond to the correct community. The Locality Development model is recommended because it provides a methodology to be followed when identifying a community, and it is an inclusive and participatory model that encourages community members to actively participate in their development initiatives in their communities.

REFERENCES

- Agrawal, A. and Gibson, C.C. 1999. *Enchantment and Disenchantment: The Role of Community in Natural Resources Conservation*. World Development. Vol 27. 629-649
- Aref, F. and Redzuan, M. 2008. *Barriers to Community Participation towards Tourism Development in Shiraz, Iran*. Parkistan Journal of Social Science. Vol 5 (9). 936-940
- Barnett, N.J. and Growther, D.E.A. 1999. *Community Identity in the Twenty- First Century: A Postmodernist Evaluation of Local Governance Structure*: International Journal of Public Sector Management. Vol 11 (6). 425-439
- Berkkowitz, B. 2013. *The Community Development Tool: Locality Development*. (<http://ctb.ku.edu/>)
- Billings, J.R. 2000. *Community Development: A Critical Review of Approaches to Evaluation*. Journal of Advanced Nursing. Vol 31 (2). 472-480
- Blaikie, P. 2006. *Is small Really Beautiful? Community-based Natural Resources Management in Malawi and Botswana*. Elsevier Ltd. World Development. Vol 34 (11). 1942-1957
- Blair, H. 2000. *Participation and Accountability at the Periphery: Democratic Local Governance in Six Countries*. World Development Vol 28. 21-39.
- Buckly, S. 2013. *Advocacy Strategies and Approaches: Overview Paper*. Association FOR Progressive Communication
- Dale, R. 2004. *Development Planning: Concepts and Tools for Planners, Managers and Facilitators*. London. Zed Books.
- Devas, N and Grant, U. 2003. *Local Government Decision-Making- Citizen Participation and Local Accountability: Some Evidence from Kenya and Uganda*. Public Administration and Development Vol 23. 307-316
- Davids, I. Theron, F. and Maphunye, K.J. 2005. *Participatory Development in South Africa in South Africa: A Development Management Perspective*. Pretoria. Van Schaik Publishers.
- Flint, C.G. Luloff, A.E. and Finley, J.C. 2008. *Where is "Community" in Community- Based Forestry?. Society and Natural Resources*. Taylor & Francis Group. Vol 21. 526-537
- Gaventa, J. and Valderrama, C. 1999. *Participation, Citizenship and Local Governance*. Institute of Development Studies
- Gaventa, J. 2002. *Introduction: Exploring Citizenship, Participation and Accountability*. IDS Bulletin Vol 33 (1). 1-11
- Harcastle, D.A. and Powers, P.R. 2004. *Community Practice: Theories and Skills for Social Workers*. Oxford University Press
- Lowndes, V. Pratchett, L. and Stokers, G. 2001. *Trends in Public Participation: Part 1- Local Government Perspective*. Blackwell Publishers. Public Administration. Vol 79 (1). 205-222
- McEwan, C. 2003. *"Bringing government to the people": Women, Local Governance and Community Participation in South Africa*. Durham, UK

- Nyaupane, P. G. Morais, D. B. and Dowler, L. 2006. *The role of Community Involvement and Number/type of visitors on Tourism Impacts: A Controlled Comparison of Annapurna, Nepal and Northwest Yunnan, China*. Tourism Management. Vol 27. 1373-1385
- South Africa (Republic). 1996. *The Constitution of the Republic of South Africa of 1996*. Pretoria. Government Printers
- South Africa (Republic). 1998. *The White Paper on Local Government*. Pretoria. Ministry for Provincial Affairs and Constitutional Development
- South Africa (Republic) 2000. *Local Government Municipal Systems Act 32 of 2000*. Pretoria. Government Printers
- South Africa (Republic). 2009. *Department of Provincial and Local Government (DPLG), National Framework*. Pretoria. Government Printers
- Stiglitz, J.E. 2002. *Participation and Development: Development Perspective from the Comprehensive Development Paradigm*. Review of Development Economic. Vol 6 (2). 163-182
- Theron, F. 2008. *The Development Change Agent: A micro-level approach to Development*. Pretoria. Van Schaik.
- Tosun, C. 2000. *Limits to Community Participation in the Tourism Development Process in Developing Countries*. Elsevier Science Ltd. Tourism Management. Vol 21. 613-633
- Tosun, C. 2005. *Stages in the Emergence of a Participatory Tourism Development Approach in the Developing World*. Geoforum. Vol 36. 333-352

THE STRATEGIC IMPLICATIONS OF ALLIANCES FOR THE INTERNATIONALIZATION OF FIRMS IN EMERGING COUNTRIES: THE CASE OF TOTVS

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ABSTRACT

The aim of this article is to present the results of research which identified opportunities created by the alliances formed by Totvs, a leading Brazilian firm, to further its internationalization. The study adopted a relationship network perspective using relational constructs. The results suggest that alliances generate more opportunities than threats for Totvs's international expansion, with the most important being those entered into franchises with resellers and into agreements with suppliers. This article seeks to contribute to research on the influence of alliances on firms' internationalization using a network theory approach and also provide support for strategic decision-making regarding alliance management in a global context.

INTRODUCTION

The 1990s, following the trade liberalization adopted by some developing countries, especially in Latin America and Asia, witnessed a sharp increase in investments in the software industry. In Brazil's case the sector achieved revenues of US\$7.7 billion in 2001, having recorded double-digit growth in revenues during the previous decade, albeit still heavily concentrated in the domestic market (Arora & Gambardella, 2005; SOFTEX, 2009). However, although Brazil as a whole is still a relatively insignificant software exporter, (in 2009 exports accounted for only 4.8% of total IT industry revenues), some of the sector's companies stood out due their rapid growth and internationalization process (SOFTEX, 2009). This is somewhat surprising given that high technology industries are not very common in developing countries (Arora & Gambardella, 2005).

Since the BRICS acronym was formulated by the economist Jim O'Neill, head of global economic research at Goldman Sachs, in a 2001 study, attention has increasingly been drawn to Brazil's growth process, with internationalization being one of the most frequently debated topics. The software industry has achieved a preeminent position among sectors due to the proliferation of internationally competitive firms in emerging countries such as India and China (Velo, Botelho, Tschang, & Amsden, 2003). Indeed, there are many references in the international strategy literature to these two countries, but few mention Brazil, especially in relation to the information technology sector. Few studies have been published on Brazilian IT companies dealing with the implications – in terms of opportunities and threats – of these firms' alliance networks for their strategies. The present study sought to identify the opportunities created by alliances for the internationalization of Totvs, Brazil's dominant software firm in the domestic market.

Totvs' main business is the development and commercialization of the right to use applications, mainly corporate management systems or ERP (Enterprise Resource Planning). The company has roughly 5.500 direct employees, distributed in six subsidiaries, as well as more than 52 franchisees and over 40 alternative distribution channels in Brazil. In 2011, Totvs had nearly 26 thousand clients, added an average of 280 new customers per month and had recorded double-digit growth for 21 consecutive quarters, achieving sales of R\$1.3 billion. It had a 53.1% share of the ERP market in Brazil and 34.5% in Latin America, making it the sixth company in the world in terms of revenues (US\$ 409 million) and the first as regards growth (34.9%) (Cosentino, Haberkorn, & Cícero, 2001; Totvs Day, accessed at the www.totvs.com.br website 02/01/2013; Exame, 2012).

In its quest to become a leading player in the Brazilian market, Totvs, since 1993, has been investing in strategic alliances and merger and acquisition processes with domestic firms, which enabled it to become the leading company in the Brazilian software market in 1999. In international terms Totvs is present in 15 countries in Latin America with more than 400 customers and 300 employees in the region. It also has a franchise in Portugal and Angola, with more than 50 clients outside Latin America distributed in eight countries (Cosentino, et al., 2001; Totvs Day, accessed at the www.totvs.com.br website on 02/01/2013).

RESEARCH METHOD AND THEORETICAL FRAMEWORK

This article used the case-study method given that it involves research into a contemporary phenomenon which needs to be investigated in its specific context to be fully understood (Yin, 1989). Case studies should be used to confirm a theory or achieve deeper knowledge of an extremely important case (Yin, 1989; Eisenhardt, 1989). Considering the huge success achieved by the firm in recent decades, which is even more significant given the fiercely competitive nature of a sector that has powerful global players, and together with the fact that it was one of the first in this industry to initiate international activities, this case's value cannot be understated.

In order to ensure information consistency and limit biases, the data presented in this article was collected from various sources, thus permitting triangulation. Two types of interviews were undertaken with Totvs executives, with one using open questions (2 interviews) and the other a structured questionnaire (3 respondents). The documental research involved the collection of information from the specialized media (71 articles), company documents for investors (2 reports on the company website), as well as the book about the company written by its chief executive.

Relationships between firms are valued when there is cooperation and greater profitability is a direct consequence of the strengthening of the commitment to this relationship (Holm, Eriksson, & Johanson, 1996). This conclusion highlights the importance of the relational perspective, i.e., that pertaining to relationships – notably alliances and other ties such as those forged through mergers and acquisitions – for an understanding of the success factors of firms which use relationships to obtain a global presence (Gulati, Nohria, & Zaheer, 2000).

Due to the strong presence of networks in business nowadays, notably in the IT industry, it is fundamental for companies to incorporate this relational view into their strategic management (Gulati et al., 2000), analyzing the context of the focal firm and all its inter-organizational relations from the perspective of the network that they configure at various levels, including global ones (Hoffmann, 2007; Macedo-Soares, 2011).

By considering the resources provided by alliances and other relationships from this perspective it is also possible to obtain a deeper view of the ease with which a firm obtains its resources, technology, markets and information through its relationship network as well as the opportunities that appear within other objectives, which may lead it to share risks or outsource part of its value chain (Gulati et al., 2000).

In line with the previous considerations, the research decided to choose the Global SNA Framework (Macedo-Soares, 2011) as a conceptual framework for analyzing the impact of strategic alliances in Totvs' internationalization process, focusing at the software industry level. This framework helps to analyze and manage the strategies of firms which compete globally in alliances and networks, seeking to assess their dynamic strategic fit from both a global and relational perspective. It comprises three components: (a) a methodology or set of steps to conduct the analysis of the global strategic network; (b) reference lists to help data /information collection; (3) a conceptual model to map the focal firm's ego-net, which encompasses the firm and its main alliances within its wider value network.

Below are presented the main concepts underlying the above-mentioned framework, so that it may be fully understood. Although the theme at issue – firms' alliances and relationship networks and their strategic implications – lends itself to a much deeper analysis, the research opted for a briefer account in order to simplify the text.

MAIN CONCEPTS

A central concept of the research is strategic fit, i.e., a strategy is said to have fit when it is able to benefit the forces constituted by organizational resources, minimizing weaknesses to such an extent that the firm is able to exploit the opportunities and reduce the threats emanating from the environment (Barney, 1996; Hofer & Schendel, 1978). Macedo-Soares (2002; 2011) argues that strategic fit implies leveraging the forces constituted not only by the firm's internal resources but also those conferred by the firm's alliances and network, thus enabling it to exploit both global macro-environmental opportunities and those offered by the alliances and network, minimizing threats posed by both the global macro-environment and the network.

Another central concept is that of alliances the definition of which was based on Gulati (1998) as voluntary arrangements between two or more firms which may include co-development, sharing or exchange of products, services or technologies. Alliances were considered strategic when they contributed directly to the focal firm's competitive advantage (Macedo-Soares, 2011). Alliances were identified according to Contractor and Lorange's (1988) typology of linkages which is based on their degree of intensity and interdependence. Linkages were thus classified running the following gamut from high to low ends: mergers & acquisitions – M&A, independent joint ventures, cross equity ownership, minority equity investment, joint Research and Development - R & D, production, or marketing, franchise alliances, know-how or patent licensing, agreements (marketing, manufacturing, supply, services, distribution). Apart from M&A, the other linkages were considered to be alliances when they met our definition of alliances based on Gulati (*ibid*). In accordance with (Gulati et al., 2000), a strategic network was defined as a set of relationships with other firms, whether or not in the same industry, whether domestic or international. Given that the research at issue in this article sought to understand the contribution of alliances to a firm's internationalization process, it was fundamental to map its strategic network and the opportunities and threats it may provide. Thus, alliances were analyzed from a network theory perspective, using two concepts: ego-net and value-net. The definition of ego-net draws on Knoke's (2001) egocentric network concept as the net represented by the focal firm, its main relationships with partners and main relationships between partners in the context of its value-net. For Brandenburger and Nalebuff's (1996), the value-net includes all actors (partners and non-partners) as well as the interdependencies which influence the distribution of power between strategic actors and the focal firm and consequently its capacity to capture significant value for the firm's competitive advantage.

In the next section we present the results of the research which followed the steps of the Global SNA methodology, beginning with the characterization of firm strategy. To undertake this the research used: (a) Mintzberg's (1995) typology – differentiation by price, brand/image, support, quality/design or non-differentiation; (b) the classification of strategies as Global, Multi-domestic, Transnational or Global Multi-Business based on Harzing (2000) and Koza, Tallman and Attay (2011).

RESULTS

Characterization of Strategy

According to the replies to the structured questionnaires and information obtained in specialized magazines, Totvs uses a strategy of product differentiation by quality and design. The leading characteristic of the Totvs product is its ability to be adapted speedily to customer processes, in contrast to its main competitors who seek rather to alter processes to better adapt their software. This strategy is in line with the firm's decision to concentrate on small and medium firms (SMEs), as reported by the Director for International Market Operations: "We operate in the middle of the pyramid.....we have been doing this for 30 years...in the SMEs, where you have a larger number of firms with considerable software purchasing power".

Most interviewees defined Totvs' strategy as Transnational – i.e. a firm which operates globally but customizes its products to local market needs (Hitt, Ireland & Hoskisson, 2009), and one interviewee defined it as Global – supply of standardized products in key global markets through integrated operations which follow directives determined by head office (Harzing, 2000; Koza, et al., 2011). Although the basic product is entirely

developed in the country where headquarters are located, its above-mentioned characteristics of flexibility and customization permit an easy adaptation to local needs.

However, the research, based on company documents (2012 4th Quarterly Report, accessed at the Totvs website www.totvs.com.br on 02/01/2013), chose to categorize the company as Multi-domestic. Although it plans to enter key global markets (e.g. U.S.A.) and has a clear strategy to become a global benchmark (Totvs Day, accessed at the website www.totvs.com.br on 02/01/2013), its international sphere of operations is still strongly focused on the Latin American market. According to Totvs' International Market Operations Director: Looking ahead to 2015, it is the region of the planet that is going to grow the most in our segment... We still haven't managed to build the market share in Latin America that we have in Brazil and we want to achieve this before conquering a very distant frontier. We also made a study to examine our growth possibilities in southern Africa (Angola, Mozambique and South Africa) if we were to grow there 30% or 40% a year, in 5, 10 years we would not even achieve the equivalent of 0.5% of the US market. So the United States has become strategic for us because of its strength, and as it is beginning to grow again like a developed country it is once again a target for us. (...).

In fact a choice that in the past would have been quite natural due to regional ties, the language, nowadays it's logical to bet on Latin America because everyone is coming here. All the continents that have internationalized companies are choosing Latin America or want to choose Latin America as their number one focus because of these growth rate percentages....

According to information given by Totvs' International Market Operations Director, marketing and operational decisions are decentralized, usually defined at hubs: "(...) nowadays we have a really cool marketing structure and a strategy for each country, not just a strategy for overseas operations, but a specific one for each country". In the following section, following the steps of the Global SNA methodology, we present the results regarding the strategic implications of macro-environmental factors, verifying whether they constitute real or potential opportunities or threats.

Strategic Implications of Macro-Environmental Factors

Macro-environmental factors were analyzed in terms of their implications especially for Totvs' international strategy, drawing largely on Austin's (1990) constructs, as follows:

- Political factors: an opportunity identified in the research was the possibility of the Brazilian government establishing a partnership with Totvs to take advantage of the leading position attained by the firm in 2011 when it conquered the 6th position in the global ranking of ERP firms. This fact may benefit the exploitation of the Brazil brand in the software industry, an achievement that has been pursued by Apex since 2009 when it created the Brasil IT+ project with the aim of enhancing global recognition of Brazil as a center of excellence in the IT sector. (Available at www.apexbrasil.com.br/brasilit. Accessed on 03/25/2012).
- Economic factors: the global recession represents a threat to the good performance of Totvs' operations throughout the world. In 2012 the company decided to reduce its operations in Portugal and Mexico and cancelled two initiatives that were being planned for Australia and India. (Totvs Day, accessed at the www.totvs.com.br website on 02/01/2013, Exame Melhores e Maiores, 2012).
- Socio-cultural factors: Competing with local companies requires an understanding of the specific characteristics of local culture. According to Totvs' Customer Service and Relations Vice –President, the latter could potentially pose a threat for the company:

The great difficulty we had...(is that)..the legal part isn't difficult, the problem is culture. Now the cultural part is not explained, you won't find how it functions exactly anywhere in writing. Example: in Brazil if you produce ERP software one has to take into account pre-dated checks, but pre-dated checks aren't covered by law anywhere, on the contrary this practice is forbidden.

On the other hand, if we consider the fact that the main target of Totvs' internationalization strategy is Latin America, the region's cultural proximity and Brazil's favorable image here obviously constitute opportunities for its expansion in these markets. Below we share the research's results for the third step of the GLOBAL SNA methodology.

Strategic Implications of the Main Global Actors

This section presents the opportunities and threats constituted by the main actors as they perform their strategic roles in the global software industry. We based ourselves mainly based on the constructs of Porter (1980) and Brandenburger and Nalebuff (1996). In the case of clients, as they belong mainly to the SME segment (Totvs Day, accessed at the www.totvs.com.br website on 02/01/2013; a Totvs institutional presentation accessed at the www.totvs.com/ri website on 02/06/2013), and thus have less financial resources, the high cost of change which the customer has to support to modify his ERP software was considered a threat. Although a positive factor in the domestic market it is a negative one in the international one: “The fact that we are market leaders, and the fact that the guy has made a big investment, helps retention. But the guy considers cost and the cost of substitution is very high”, said Totvs’ International Market Operations Director.

Another, albeit incipient, opportunity identified by the research was constituted by Totvs’ international expansion through new businesses developed in partnership with international customers: “ we can see, for example, a customer who is originally from Mexico, taking us to Colombia, a Portuguese guy taking us to Angola, a Chilean taking us to Peru, along with their expansions”, according to Totvs’ International Market Operations Director.

As regards suppliers, the ones most mentioned by interviewees and in replies to the structured questionnaires were data base suppliers, such as Oracle, Microsoft and IBM, but who, excluding IBM are also Totvs’ competitors as they commercialize ERP software and should therefore be classified as a threat. Totvs’ main competitors are SAP in Brazil (Revista Exame, Melhores e Maiores, 2012) and Microsoft in Latin America, two large multinational companies who can represent serious threats for Totvs, due both to their financial capacity and strong brands. In small Latin American countries, Microsoft has achieved a high degree of penetration with its products, precisely among SMEs, hampering Totvs’ moves in the region. According to Totvs’ International Market Operations officer:

They are not able to establish themselves in Brazil, we don’t let them. We don’t compete with them here (...) with the exception of Microsoft. We have strong competitors in each country, who are local competitors and there are the big ones who like to operate at the top of the pyramid. I would say that SAP is our big competitor at the top of the pyramid, Oracle is fragile in Latin America and there are the tiny ones in each country. In the middle of the pyramid I would say that our big international competitor is Microsoft.

However, the differentiation of Totvs’ product may be considered a real opportunity – mainly in relation to Microsoft’s offering – as it permits greater customization flexibility, a benefit that is highly valued by small firms. Totvs’ International Market Operations Director said:

Our differential... in relation to product and technology (is), flexibility. Perhaps we are one of the most flexible tools in the market. There is also the great advantage that in the case of SAP you have to go to Germany to customize. This flexibility is very important. If you know to use it surgically to make a difference in the guy’s business, it’s a killer.

The research did not identify threats from new entrants, given that small software developers, due to the high cost of developing a complete and integrated solution, are usually only able to serve a specific function of the firm without ensuring a good level of communication with the other applications. Solutions that can be considered substitutes were not classified in the structured questionnaires as a threat. ERP software replaces manual processes or products developed internally. In both cases, the cost is usually much greater than buying from a company with Totvs’ scale. With respect to possible complementary actors, it is important to mention that business consultants, which deal very actively with competitors (SAP, Oracle, Microsoft), do not take part in the implementation stage of Totvs customers’ project. However, Totvs uses partnerships with consultants to localize their product in a specific country, thus speeding up the acculturation process: “... in fact we hire a consulting firm for each country so that they can teach us the ropes in terms of localization” as mentioned by the Customer Service and Relations Vice –President.

Another important complementary partnership created recently by Totvs, was between the Research and Development Unit in Silicon Valley – the Totvs Lab (Valor Econômico, 10/04/2012, Exame Melhores e Maiores, 2012), and two local universities – Stanford University and San Jose State University (SJSU) – whose role will be to detect trends and monitor developments in the US management software market and middleware

platforms. (Totvs Blog, 10/25/12 at <http://www.suporte.totvs.com/web/guest/blog>; Accessed on 02/07/2013). Another actor who could be identified as a source of opportunity is constituted by Government Bodies, represented here by the National Brazilian Development Bank (BNDES). A partner of Totvs, it invested 40 million BRLs in the company in 2004, acquiring a 16% stake. In 2007 it made a new investment in Totvs, this time amounting to 400 million BRLs: “Of all investments made by the BNDES, this is one that makes the most sense”, according to Sergio Lazzarini, a professor at Insper whose research focuses on the government’s role in the economy. (Exame Melhores e Maiores, 2012). According to Totvs’ International Market Operations officer, “the BNDES intends to establish a partnership with Totvs along the lines of its successful partnership with Embraer”. As mentioned above, this partnership could lever Totvs’ international business, as well as improve international perceptions of the Brazil brand in the IT industry. The next section presents the results for the steps of the Global SNA methodology pertinent to the relational perspective.

Strategic Alliances and TOTV’s Ego-Net

So as to facilitate the analysis of the strategic implications of alliances in Totvs’ internationalization process, the researched mapped these alliances using the Global SNA Framework (Macedo-Soares, 2011) model. Besides its other advantages, this model constitutes a useful tool for the visual identification of the strategically most significant ties and the importance of the focal firm within its global value net. With this view, it is possible to identify unexploited opportunities, revealing possible new strategies that the firm could exploit. It should be emphasized that to use this model the firm does not necessarily have to operate globally, merely needing to belong to an industry that is important in the global market.

The model uses different colors and forms to represent the constructs defined by Galaskiewicz and Zaheer (1999) and Gulati et al. (2000) for the following dimensions of the network: (a) structure – represented in terms of the number of ties/linkages (high or low) by density; (b) composition – represented in terms of the volume of resources and status, by the size and form of network members; (c) tie/linkage modality, represented by strength of connections (strong or weak) and by the nature of ties, represented by the thickness of connecting lines and the direction of arrows: collaborative, or opportunistic or exploitative. When their nature is collaborative, there are arrows at both extremes, and when opportunistic, or exploitative, the arrow points to the partner who is at a disadvantage. The model also indicates the intensity of the linkage by colors, using the full rainbow spectrum, where red indicates high intensity – merger/acquisition or joint venture and purple is used for lower intensity – agreements.

The replies to the structured questionnaires show that the main partners were suppliers, re-sellers and complementors. Customers and government entities were also cited, but as less important, as well as some of Totvs crucially important competitors such as Oracle and Microsoft, given that they have the databases with which Totvs software needs to interact. The documental investigation and interviews also evidenced that Totvs has preferred the franchise model to expand its territory, both domestically and internationally, although for a certain period of time it used acquisitions to expand in the domestic market. (Revista Exame and Valor Econômico, 2006, 2008, 2009, 2010). For this reason its partnerships with resellers may be considered the strongest tie in terms of the international reach of the Totvs ego-net. According to Totvs International Market Operations Director, during the process of establishing an international partnership, the firm follows a guiding principle to ensure that a channel may grow and intensify its ties with Totvs until becoming owner of a territory. Partners are chosen from companies which are already established and whose business complements Totvs’, such as, for example, firms that sell and distribute hardware, which usually aspire to becoming software vendors with their higher margins. Thus, this tie has a dynamic characteristic as it achieves greater density over time.

Another important characteristic of this alliance concerns its nature which the research classified as collaborative, given that Totvs makes initial financial investments to lever the beginning of these firms’ operations. According to Totvs’ International Market Operations officer: One of the main reasons a channel goes bust outside Brazil, is the problem it has financing itself during the first months or the first year. So we organize a mixed team to prepare it to manage the project, but give it part of the revenues to pay the rent and water and electricity bills. This is crucial for the birth and survival of the channel during the first year.

As regards the factors that motivated the setting up of alliances, the most frequent replies in the structured questionnaires were closer commercial relations, cost sharing and the reduction of entry costs to new markets. The latter, if we consider the aspects of the international operation, was often mentioned in interviews as alliances with resellers – and possible future franchisees – permitting entry to a new territory without the cost of creating an own structure.

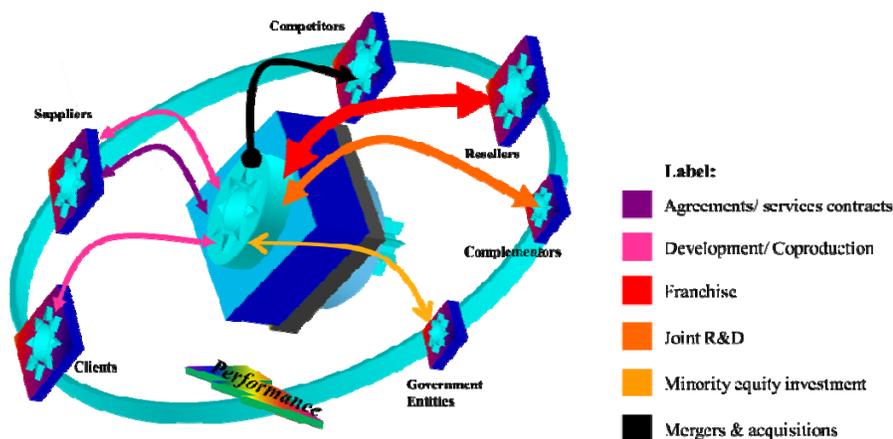
Another important alliance identified in the research concerns the intention to narrow ties with multinational clients in order to increase the company’s reach (Exame Melhores e Maiores, 2012). This strategy was confirmed in an interview with the International Market and Operations officer who revealed that Totvs was creating the position of business facilitating agent - an international market salesperson - whose role would be to incentivize domestic salespersons to seek cross selling outside Brazil through customers who already had a significant presence in its international units. According to the International Market Operations officer: One of the 187 actions is the creation of the AVN, a business facilitating agent, who is an International Market seller. He keeps on pushing sellers who have account relationships in Brazil to do cross-selling outside Brazil. We have a study showing that 5% of our base in Brazil that has a unit abroad is a Totvs customer. There is a great opportunity to be exploited here.

Another important alliance identified in the research was the one established between the Totvs’ new R&D unit in Silicon Valley and two American universities – Stanford and San José State University. Although it is still classified as one of lower intensity/interdependency, its importance for Totvs’ strategic objective of becoming a global benchmark justifies its mapping in Totvs’ ego-net. According to Totvs’ International Market Operations Director:

An interesting thing is that we have Chinese, Thais, Russian, Indians, a pile of people working, to help us ... in this internationalization culture...it’s a branch of our Brazilian technology team. There are 14 different nationalities. ...We hired Stanford to validate our roadmap, in other words, everything we think today and in the future in terms of technology and applications is presented twice year to a team of PhDs from Stanford and San Jose State and they validate our roadmap and bring the most modern news from the cutting edge to criticize ours.

The links with competitors represented in the model refer to Totvs’ acquisition of two competitors - RM and SIPRO - that enabled the company to gain entry to Portugal and Mexico, respectively (Revista Exame, 2006).Based on the information collected in interviews and documents, the research mapped Totvs’ ego-net, highlighting especially its international alliances, considering only the main types of alliances with each actor, as shown in Figure 1.

Figure 1 – Totvs’s ego-net, highlighting international alliances.



Below we present the research’s results regarding the strategic implications of Totvs’ international alliances that were analyzed after mapping the company’s ego-net.

Strategic Implications of TOTV’s International Alliances

Tables 1, 2 and 3 show the opportunities and threats constituted by Totvs's international alliances at industry level, respectively, for each one of the three network dimensions contemplated in the research: structure, composition and tie modality.

Table 1 – Structure of Totvs's alliance network.

Dimension	Constructs	Results	Industry Level	
			Opportunities	Threats
Alliance Network Structure	Density	<ul style="list-style-type: none"> - Average with complementors - High with suppliers - High with resellers (franchisees). 	<ul style="list-style-type: none"> - Increase presence in new countries - Access to technological information of global partners. 	<ul style="list-style-type: none"> - Risk of sharing confidential information with complementors (Microsoft), ordinary customers and suppliers.
	Scope	<ul style="list-style-type: none"> - Local with resellers - Restricted and Global with suppliers and complementors. 	<ul style="list-style-type: none"> - Facility of global expansion. 	<ul style="list-style-type: none"> - Difficulty to expand geographically due to the greater density of regional competitors (Microsoft)
	Position of Centrality in the network	<ul style="list-style-type: none"> - Central with resellers and suppliers - Peripheral with complementors 	<ul style="list-style-type: none"> - High centrality provides bargaining power with resellers 	<ul style="list-style-type: none"> - The peripheral position of complementors puts Totvs in a less favorable competitive position. - Risk of decline in performance due to weak arrangements with complementor partners

The research made evident that alliance networks with complementary partners are restricted and peripheral in relation to scope and centrality. Since its main complementor partners are those firms that make their databases available and provide consulting, Totvs needs to establish alliances with the main players to ensure that its software has solutions that are compatible with technological platforms of the greatest number of clients. However, these firms, such as Oracle and Microsoft are large global companies, and this is compounded by the fact that they also have ERP software that competes with Totvs's products. Totvs is thus in a vulnerable position in these specific alliances.

Alliances with suppliers are more favorable to Totvs, given that despite being global players they do not compete with the company, thus facilitating its geographical expansion. As seen above, alliances with resellers are the most important and generate more opportunities for Totvs. However, as the partners chosen are always small companies, there is a risk that international units will have a weak financial performance or even fail, as revealed in an interview with Totvs' International Market Operations Director: "One of the most important reasons for a channel outside Brazil failing is the difficulty it has financing itself during its first months or the first year."

Table 2– Members of Totvs's global alliance network

Dimension	Constructs	Results	Industry Level	
			Opportunities	Threats
Composition of Global Network	Identity/ Status of Firm	<ul style="list-style-type: none"> - Strong and successful (6th. in world ranking). 	<ul style="list-style-type: none"> - Easy to obtain partnerships in new geographical markets in the LA region. 	
	Identity/ Status of partner	<ul style="list-style-type: none"> - Rich in distinctive resources; global complementors 	<ul style="list-style-type: none"> - Opportunity to access distinctive resources of partners with global experience. 	<ul style="list-style-type: none"> - Resellers with a weak status and identity can be a complicating factor to face competition from stronger

		and suppliers and local resellers.		competitors.
	Volume and ease of access to partners' resources	- Abundant and easy with suppliers. - Satisfactory and easy with resellers and complementors..	- Opportunity to develop more enduring and innovative relations.	
	Completeness of all partners' resources	- A High complementarity with complementors and resellers.	- Positive exchanges for both sides of the partnership.	- Some alliances with complementors who are also competitors can lead to conflicts or breaches of confidentiality.

The analysis of the members of Totvs's network made evident various opportunities, highlighting positive and bilateral exchanges. However, in the Latin American region, which nowadays is the main focus of Totvs's strategy, there is an important competitor – Microsoft – which has already conquered most of the territory, raising the question as to whether these alliances with small resellers will be able to face up to a big competitor like Microsoft.

Table 3 – Tie modalities of Totvs's global alliance network.

Dimension	Constructs	Results	Industry Level	
			Opportunities	Threats
Tie Modalities	Strength of connections	- Strong with resellers, complementors and suppliers.	- Opportunity for greater productivity of the industry	- Risk of losing access to a world class database
	Nature of ties	- Collaborative with resellers, complementors and suppliers.	- Opportunity for positive long-term actions which benefit not only partner firms but also the industry and external environment.	
		- Explorative with complementors and suppliers. - Exploitative with resellers	- Explorative partners explore new opportunities and create an environment that favors innovation.	- Exploitative partnerships can hinder or impede innovations.

From the analysis of the tie modalities of the ego-net, due to the strong and collaborative characteristics Totvs's ego-net, we found opportunities for the expansion of productivity and innovation in the ERP software industry. An example of this is the recently created alliance with Silicon Valley universities, which act as complementors in Totvs's network. As regards the nature of these ties, one should highlight the exploitative aspect identified in alliances with resellers, hindering the development of joint innovation. The next section presents a broad outline of the latest results of Totvs's performance, following the GLOBAL SNA methodology.

TOTV's Performance

In its 2012 annual report Totvs indicated that the company continues to consolidate its position as leader in Brazil and Latin America. Its net revenues totaled R\$1.437 million in 2012 (+12.4% in relation to 2011), with EBITDA of 26.7%, 260 basis points more than in 2011. Net revenues on international sales grew by 22.1% in 2012, increasing from R\$16.627 million to R\$20.306 million. During the same period, the firm's EBITDA increased by 39.0%, reducing losses by R\$6.087 million. These gains in efficiency, despite the devaluation of the

BRL in 2012, are the consequence of the initiatives taken during the year, based on the new plan for the internationalization of the Company's operations, aimed at achieving an EBITDA equilibrium by the end of 2014. The company has a more significant presence in Latin America, with franchisees in Mexico, Argentina, Uruguay, Paraguay and Chile. It also has units in Portugal and Angola and products in Porto Rico, the Dominican Republic, Venezuela, Peru, Nicaragua, Guatemala and El Salvador. Recently TOTVS was recognized by the consulting firm Interbrand as the 23rd most valuable brand in Brazil in 2012, appearing for the first time in its history among the 25 most valuable brands of the study.

DISCUSSION

Assessing the Fit of Totvs's Industry-Level Internationalization Strategy

Although it has been participating in the international market for 15 years, Totvs has made little progress where its internationalization process is concerned, especially in comparison with the company's impressive and consistent results in the domestic sphere.

In 2012, the company reviewed its international strategic positioning, establishing an international directorate and deploying various strategic actions, with some already showing positive results in 2012. The most important were: (a) closure of some of its own units (Mexico and Portugal), adopting a franchise model, and reformulating its cost structure; (b) changing the scope of offerings, focusing on vertical products with better growth potential and which are easier to adapt to local markets; (c) reformulating target markets, focusing more on the US market without neglecting Latin America, an obviously attractive market for a Brazilian software company. In terms of market segment, Totvs would continue to focus on SMEs in specific industries, which is compatible with its choice of target market, full of medium-sized firms with considerable software purchasing power.

Another important decision was to create the Silicon Valley unit, which has a team of designers, scientists and engineers from various countries such as Brazil, USA, China, Russia and India and whose aim is to study trends and develop innovative products focused on cloud computing, social media, big data and mobile. This unit will also have the important role of identifying and strengthening partnerships with local companies and start-ups that wish to expand globally, especially in Latin America. This unit has already begun important alliances with local universities that will orient Totvs's team of scientists in relation to technological trends. These decisions and actions are compatible with the objectives defined by the company regarding its operations in the international market: achieve the break-even point in terms of EBITDA in 2014 and account for 3 to 5% of total revenues in 2016.

In sum, this research identified relational opportunities that were very important for the firm's strategic decision-making regarding internationalization. It was possible to show that Totvs has been trying to find the right path towards success in the international market and that its quest for alliances has formed one of the pillars of this undertaking, visible both in its use of collaborative partnerships with small local businessmen and the more sensitive alliances with global actors such as Oracle, Microsoft and IBM.

Thus the use of the relational perspective was crucial in this study, illustrating the importance of performing strategic analyses from both the traditional (i.e. non-relational) and relational perspectives, in a complementary fashion. Table 4 presents a comparison between the traditional analysis and the one that adopts a relational perspective.

Table 4: Comparison between research's results respectively from the traditional and the relational perspectives.

Traditional Ananlysis	Relational Analysis	Implication
<u>Real Threat</u> Size and bargaining power of the main ERP competitors.	<u>Potential Opportunity</u> Alliance with BNDES which could increase Totvs's investment capacity.	<u>Potential Opportunity</u>
<u>Real Threat</u> Difficulty of adhering to the	<u>Real Opportunity</u> Alliance with local companies and	<u>Real</u>

commercial and cultural rules of each country.	businessmen provides a competitive advantage as regards acculturation and identification.	<u>Opportunity</u>
<u>Potential Threat</u> Big global competitors with greater technological innovation capacity.	<u>Real Opportunity</u> Alliance with American universities.	<u>Real Opportunity</u>
<u>Real Threat</u> Global recession especially in Europe.	<u>Potential Opportunity</u> International expansion through the indications of multinational customers.. <u>Potential Opportunity</u> Establish alliances with large consulting firms to deploy Totvs's solutions and expand territorially	<u>Potential Opportunity</u>

CONCLUSIONS AND RECOMMENDATIONS

This article presented the results of a study that examined the strategic opportunities provided by Totvs's alliances for its international expansion. Although the research concluded that the strategy is appropriate in terms of Totvs's objectives in international markets, it is still possible to list some potential opportunities that could be exploited by the company. More specifically, we should highlight the alliances with complementary firms such as the Big 5 (business consultants) or with some suppliers like IBM. These partnerships could produce positive results in Totvs's geographical expansion, as these firms possess a broad and global network of clients. Another important partnership would be with governmental bodies (for example with APEX), in order to publicize Brazil's competence in the software industry, thus improving perceptions in potential markets. Totvs has become aware of the potential opportunities achieved by forming strategic alliances. This awareness will be fundamental in preparing the company for its strategic intents.

Our study helped confirm a fact already evidenced in other studies of the technological sector (Macedo-Soares & Mendonça, 2010): namely that alliances create more opportunities than threats, on occasion even mitigating potential threats, especially non-relational ones, as shown in Table 4. By the same token, it fulfilled its objective of providing lessons for software firms through the analysis of Totvs's strategic fit at industry level. Applying the Global SNA Framework to the case of Totvs demonstrated that the inclusion of the relational and global perspectives in the analysis of a firm's strategy – which competes globally through alliances - enriches the analysis and consequently provides a more complete view on which to base strategic decision-making. As to future research, we suggest carrying out a similar analysis in the case of other software firms in Brazil as well as in other emerging countries. As this industry is very dependent on innovation it would be interesting to confirm whether global alliances reduce the threats related to the technological lag which is so common in less-developed countries.

REFERENCES

- Arora, A., & Gambardella, A. (2005). *From underdogs to tigers - The rise and growth of the software industry in Brazil, China, India, Ireland, and Israel*. Oxford, University Press.
- Austin, J. E. (1990). *Managing in developing countries: Strategic analysis and operating techniques*. New York : The Free Press.
- Barney, J. B. (1996). *Gaining and sustaining competitive advantage*. Ohio: Addison –Wesley Publishing Company.
- Brandenburger, A. M., & Nalebuff, B. J. (1996). *Co-opetition*. New York: Doubleday.
- Contractor, F.J., & Lorange, P. (1998) Why should firms cooperate? The strategy and economics basis for cooperative ventures. In: *Cooperative strategies in international business*. Lexington, MA: Lexington Books. 3-28.

- Cosentino, L.; Haberkorn, E., & Cícero, F. (2001). *Genoma empresarial*. São Paulo: Editora Gentel.
- Eisenhardt, K. M. (1989). Building theories from case study research.. *The Academy of Management Review*, 14, 532–550.
- Galaskiewicz, J., & Zaheer, A. (1999). Networks of competitive advantage. *Research in the Sociology of Organizations*, Jai Press Inc., 16, 237-261.
- Gulati, R. (1998) Alliances and networks. *Strategic Management Journal*, 19, 293- 317.
- Gulati, R., Nohria, N., & Zaheer, A. (2000). Strategic networks. *Strategic Management Journal*, 21(3), 203–215.
- Harzing, A.-W. (2000). An empirical analysis and extension of the Bartlett and Ghoshal typology of multinational companies. *Journal of International Business Studies*, 31(1), 101–120.
- Hitt, M. A., Ireland, R.D., & Hoskisson, R.E.(2009) *Strategic management: competitiveness and globalization*. 8th Ed. Mason, OH: South-Western Cengage Learning.
- Hofer, C., & SchendeL, D.E. (1978). *Strategy formulation: analytical concepts*. New York: West Publishing Co. Paul.
- Hoffmann, W. H. (2007). Strategies for managing a portfolio of alliances. *Strategic Management Journal*, 28, 827–856.
- Holm, D. B., Eriksson, K., & Johanson, J. (1996). Business networks and cooperation in international business relationships. *Journal of International Business Studies*, 27(5), 1033–1053.
- Knoke, D. (2001). *Changing organizations: business networks in the new political economy*. Colorado: Westview.
- Koza, M.P., Tallman, S., & Ataay. (2011). The strategic assembly of global firm: A microstructural analysis of local learning and global adaptation. *Global Strategy Journal*, 1, 27-46.
- Macedo-Soares, T.D.L. v. A. (2002). Strategic alliances and networks: conceptual tools for strategic assessments. *Readings book of GBATA Conference*. Rome, 292-305.
- Macedo-Soares, T. D. L. v. A. (2011). Ensuring dynamic strategic fit of firms that compete globally in alliances and networks : proposing the Global SNA — Strategic Network Analysis — framework . *RAP Revista de Administração Pública*, 45(1), 67–105.
- Macedo-Soares, T. D. L. v. A. , & Gouvêa de Mendonça, A. P. (2010). Strategic implications of alliances and other linkages of leading telecom operators in Brazil: Network and international perspectives. *Latin American Business Review*, 11(1), 45–73.
- Mintzberg, G.H., Quinn, J.B., & Ghoshal, S.(1995). *The strategy process*. London: Prentice Hall.
- Porter, M. (1980). *Competitive strategy*. New York: The Free Press.
- SOFTEX - Associação para promoção da excelência do software brasileiro. (2009). Software e Serviços de TI: A Indústria Brasileira em Perspectiva, Observatório Softex, 1(1).
- Veloso, F., Botelho, A., Tschang, T., & Amsden, A. (2003). Slicing the knowledge-based economy in Brazil , China And India : A Tale Of 3 Software Industries. *Massachussets Institute of Technology* (MIT).
- Yin, R. (1989). *Case study research: design and methods*. Sage Publications, Inc. California.

IMPACT OF PRICE ELASTICITY ON DEMAND FOR MEDICAL EXPENDITURE IN SOUTH AFRICA: AN ECONOMETRIC APPROACH

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ABSTRACT

The rising cost of medical care is a course for concern for most governments throughout the world. There has been a growing concern among policy makers both in developed and developing countries regarding the rapidly increasing national spending on rising medical care costs. The purpose of this paper is to analyze the impact of price elasticity on demand for medical expenditure in South Africa by utilizing time series data from the South African Reserve Bank and Statistics South Africa. This study will help the policy makers to carry with the idea of helping the poorer section of the South Africa community with reduction of the medical cost by implementing initiatives like NHI throughout the country. The model is estimated by using the cointegrating vector autoregressive (CVAR) framework. The findings show that all the variables have unit roots and cointegration was found emphasizing the presence of a long run equilibrium relationship. The results indicate also that in the long run in line of expectations that price for medical expenditure is inelastic.

INTRODUCTION

The rising cost of medical care is a course for concern for most governments throughout the world. There has been a growing concern among policy makers both in developed and developing countries regarding the rapidly increasing national spending on medical care and rising medical care costs (Mocan, Tekin and Zax, 2004). According to Nahata, Ostaszewski and Sahoo (2005) both public and private expenditures on health care are rising faster than any other sector in the U.S. economy. Further evidence to this fact is provided by Xu, Evans, Carrin, Aguilar-River, Musgrove and Evans (2007) who maintain that millions of people around the world are prevented from seeking and obtaining needed health care each year because they cannot afford to pay the charges levied for diagnosis and treatment. This can lead to financial hardship and even impoverishment because people are too ill to work. The other side of the coin, less well understood, is that many of those who do seek medical care suffer financial catastrophe and impoverishment as a result of meeting these costs. This occurs in both rich and poor countries. World Health Organisation (WHO, 2008) indicates that uncontrolled commercialism which undermines principles of health as a public good is one of the trends that undermine the improvement of health outcomes globally.

Changes envisaged for the US and South Africa have similarities both suffer from escalating health care costs, poor outcomes for expenditure on health care, and fragmentation of services (van Niekerk, 2010). According to Stassen (2012) private medical insurance is a luxury less than one in five (16 percent) South Africans can afford, and it is not getting any cheaper. Studies reveal that in 1981 a household with one working member paid about 7 percent of its income to medical scheme contributions, by 1991 this portion had increased to 14 percent, rising further to 20 percent by 2001, and by 2007 stood at 30 percent. As developing country South Africa is also faced with the challenge of escalating medical care costs. Since health care is very essential and the economy is unable to sustain rapid growth in medical expenditure, a debate regarding the strategies which can be used to help those who cannot afford is raging on. The South African government is planning to introduce the National Health Insurance (NHI) with the intention to bring reform that will improve service provision. NHI will ensure that everyone has access to appropriate, efficient and quality health services. The

expectation is that it will promote equity and efficiency so as to ensure that all South Africans have access to affordable, quality healthcare services regardless of their socio-economic status. It is also touted to be an innovative system of healthcare financing with far reaching consequences on the health of South Africans (NHI, 2011). According to Schaay, Sanders and Kruger (2011) in terms of the burden of disease, life expectancy in South Africa is currently 53.9 years for males and 57.2 years for females. Although South Africa spends more per capita on health than any other African country 8.7 percent of its gross domestic product, it is one of only twelve countries in the world where child mortality has increased since the Millennium Development Goals (MDGs) baseline was set in 1990.

South Africa has four concurrent epidemics, a health profile found only in the Southern African Development Community region. Poverty-related illnesses such as infectious diseases, maternal death, and malnutrition, remain widespread and there is a growing burden of non-communicable diseases. HIV/AIDS accounts for 31 percent of the total disability-adjusted life years of the South African population, with violence and injuries constituting a further cause of premature deaths and disability (Coovadia, Jewkes, Barron, Sanders and McIntyre, 2009). Elasticity measures are particularly useful because they focus on the relative magnitudes of changes rather than the absolute. As such, elasticity measures are free of units of measurement. This characteristic makes them particularly useful for comparing demand responses across products, countries and individuals (Ringel, Hosek, Vollaard and Mahnovski, n.d.). According to Shafrin (2009) most experts believe that health care demand is fairly inelastic. If you are sick, you will not be very price sensitive. Other studies also find that patients are fairly insensitive to changes in health care prices. For instance, the RAND Health Insurance Experiment found that the price elasticity of medical expenditures is (-0.2) inelastic.

According to Liu and Chollet (2006) more recent research has estimated the demand for insured health services to be inelastic with respect to price. Most estimates of the price elasticity of demand for health care services in general (or total spending) are about -0.2 . Estimated price elasticities differ by type of service, but the differences are not generally large. For instance; insured consumers may cut back on their overall health spending by 2 percent in response to a 10 percent increase in the price of health care (net of insurance coverage). Price-induced changes in demand have been attributed more to changes in the probability of using any care than to changes in the amount of care used once it is accessed. Low-income consumers are more sensitive to changes in the price of care. Consequently, they may be more likely to experience adverse consequences from higher cost-sharing.

Several researchers have been investigating the determinants of health care demand such as (e.g. Manning, Newhouse, Duan, Keeler, & Leibowitz, 1987; Wedig, 1988). Other researchers such as Gruber and Lettau (2004) focus on the the impact of tax subsidies on the firm's decision to offer insurance, and on conditional firm spending on insurance. According to Mocan, et, al (2004) a significant amount of research has been devoted to the investigation of the determinants of the demand for medical care in developing countries. The issue is especially important for developing countries which face an increasing demand for health services, coupled with a lack of funds to finance the health care system due to adverse macroeconomic conditions.

Although there several studies that have paid attention to areas like the elasticity of demand for health care. Most of these studies do not use current econometric approaches of using times series analysis, which is the intention of this study. To our knowledge very few studies have done analysis of impact of price elasticity on demand for medical expenditure in South Africa. This study will help the policy makers to carry with the idea of helping the poorer section of the South Africa community with reduction of the medical cost by implementing initiatives like NHI throughout the country.

Catastrophic health spending is not caused simply by high-cost medical procedures or interventions. A relatively small payment can mean financial catastrophe to a poor person or household, forcing them to reduce other basic expenses such as food, shelter, or their children's education. Similarly, large health care payments can lead to financial catastrophe and bankruptcy even for rich households (Xu et al., 2007). Against this background the purpose of this study is to answer the following questions:

- What are the effects of price elasticity on demand for medical expenditure in South Africa?
- What are the determinants of demand for medical expenditure in South Africa?

More specifically the paper has this specific objective:

- To analyzes the impact of price elasticity on demand for medical expenditure

- To identify the determinants of price elasticity on demand for medical expenditure in South Africa.
- These objectives will be achieved by the application of CVAR framework. The findings of this paper are expected to further increase the call for subsidizing the poor with medical expenditure by speedy implementation of NHI.
- The remainder of the paper is as follows: Section 2 describes the research methods which includes data and model specification. Section 3 deals with empirical results, section 4 presents the discussion of the results and Section 5 is the concluding remarks.

RESEARCH METHOD

Data and Model Specification

The study uses time series set to examine price elasticity on demand for household medical expenditure in South Africa during 1970-2011. This paper considers four variables: household expenditure on medical services, household disposable income, consumer prices on food, consumer prices on education, and consumer prices on medical health. Data is obtained the South African Reserve Bank (SARB) and Statistics South Africa (SSA) online. It should be noted that the limitation to this investigation is the problem of consistency of data obtained from various sources which had to be attuned to the needs of the study. The study estimates the following multivariate model:

$$MDS = F(HDY; PRFD; PRIH; PEDC; \varepsilon) \quad (1)$$

where

- MDS is the household medical expenditure,
- HDY is the household disposable income,
- $PRFD$ is the consumer prices on food,
- $PRIH$ is the consumer prices on health spending,
- $PEDC$ is the consumer prices on education and
- ε is the disturbance or error term.

The disturbance term is included because almost always variation that comes in from sources such as measurement error, incorrect functional form, or purely random and totally unpredictable occurrences. The current study admits the existence of such inherent unexplained variation “error” by explicitly including a stochastic error term in the model.

UNIT ROOT TESTING

One problem with time series data is that independent variable can appear to be more significant than they actually if it has the same underlying trend as the dependent variable. This causes non-stationary variables to appear to be correlated even if they are not. Therefore the current study needs to test for stationarity conditions of variables in order to avoid spurious regression. The stationarity of the variables is investigated by employing the unit root tests developed by Augmented Dickey and Fuller (1979). The unit root tests are calculated for individual series to provide evidence as to whether our variables are stationary and integrated of the same order. The test is conducted under the assumption that the residuals may be serially correlated. Formally the test is based on the following equation:

$$\Delta Y_t = \alpha_0 + \delta Y_{t-1} + \alpha_1 t + \sum \beta \Delta Y_{t-1} + \varepsilon_t \quad (2)$$

Where

ε_t is a white noise, α_0 is an intercept (constant) whereas δ , β and α_1 are coefficients.

The number of lagged differenced terms is often determined empirically, the idea being to include enough terms so that the error term is indeed serially uncorrelated. In practice, the appropriate lag may be set, for instance based on minimising the Akaike Information Criterion (AIC). The second step is to test for cointegration among those variables using the Johansen’s (1988) methodology.

JOHANSEN COINTEGRATION

Cointegration theory is a revolution in theoretical econometrics, which has created a lot of interests and uses by economists. The layman may define cointegration as a long-term stable relationship between two or among many variables: something like “equilibrium” among those variables exists. The literature indicates that there are many tools such as Engle Granger cointegration and Durbin-Watson (D-W) cointegration to be used for cointegration, but this current study adopt Johansen cointegration method. The generalisation of the Johansen procedure is as follows:

$$\Delta y_t = \sum \Pi_i \Delta y_{t-i} + \Pi y_{t-n} + \varepsilon_t \quad (3)$$

Where $y_t = (k \times 1)$ vector of variables $(\beta_1 y_{t-1}, \beta_2 y_{t-2}, \dots, \beta_n y_{t-n})$, ε_t is independent and identically distributed n-dimensional vector with mean zero and variance equal to matrix $\sum \varepsilon \Pi(\varepsilon \varepsilon')$ is the number of independent co-integration vectors, and Πy_{t-n} is the error correction factor. The Johansen procedure relies on the rank of Π and its characteristics roots. If rank $(\Pi) = 0$, the matrix is null (no cointegration) and equations in vector y_t are a common VAR in first differences. If Π has full rank $(\Pi = k)$, the vector process is stationary and the equations in y_t are modeled in levels – $I(0)$. If rank $(\Pi) = 1$, there is evidence of a single cointegrating vectors in Johansen’s cointegration procedure is applied to this study. These tests are:

Trace test

$$\lambda_{\text{Trace}}(r) = -T \sum \ln(1 - \lambda_r) \quad (4)$$

Maximum eigenvalue test

$$\lambda_{\text{max}}(r, r+1) = -T \sum \ln(1 - \lambda_{r+1}) \quad (5)$$

Where $\lambda_{r+1}, \dots, \lambda_k$ are the $(k-r)$ smallest estimated eigenvalues. In both tests, λ represents the estimated values of the characteristics roots obtained from the estimated Π matrix, and T is the number of observations. The trace test attempts to determine the number of cointegrating vectors between the variables by testing the null hypothesis that $r = 0$ against the alternative that $r > 0$ or $r \leq 1$ (r equals the number of co-integrating vectors). The maximum eigenvalue tests the null hypothesis that the number of co-integrating vectors is equal to r against the alternative of $r+1$ co-integrating vectors. If the value of the likelihood ratio is greater than the critical values, the null hypothesis of zero cointegrating vectors is rejected in favor of the alternatives.

EMPIRICAL RESULTS

Table 1 below summaries the descriptive statistics of the variables in their level form. These elementary descriptive are reported only as an indication of the nature of the raw data to be used in the analysis.

Table 1: Descriptive statistics of the variables used

	MDS	PEDC	PRFD	PRIH	HDY
Mean	35233.19	24.93357	48.74595	47.05286	417534.7
Std. Dev.	23858.64	33.36016	40.31239	42.67513	495410.3
Observations	42	42	42	42	42

Table 2 reports ADF for test statistics for logarithm levels and first difference of the variables under study. The stationarity of the variables is investigated by employing the unit root test invented by Dickey and Fuller (1979). The ADF results indicate that the null hypothesis of non-stationarity cannot be rejected for any variables in the level form. However, the variables are in first differences under the same assumption of intercept and most of them become stationary at 1 percent level of significance. The second step is to test for presence of cointegration among variables using the Johansen’s (1988) methodology. The lag length of the level vector autoregression system has been determined by minimising the Akaike Information Criterion.

Table 2: ADF results at levels and first difference

Series	Test on	Lag length	ADF test statistics	Probability
<i>Log_MDS</i>	Levels	0	-0.1209	0.9402
	First difference	1	-5.185***	0.0001
<i>Log_HDY</i>	Levels	0	-3.668***	0.0084
<i>Log_PRFD</i>	Levels	0	-2.1318	0.2338
	First difference	0	-5.3364***	0.0001
<i>Log_PRIH</i>	Levels	0	-1.2069	0.6624
	First difference	0	-5.0036***	0.0002
<i>Log_PEDC</i>	Levels	0	-1.7576	0.3956
	First difference	0	-6.4227***	0.0000

Notes: the lag length is specified using the Schwarz Information Criterion (SIC). ADF test statistics and significance level: * = 10 %, ** = 5%, *** =1%.

The results of both the unrestricted Cointegration tests of the Trace and the Maximum Eigen value tests are presented in Tables 3 and 4 respectively. The first column of each table gives tests for hypothesized number of cointegrated equations and second column reports the corresponding trace statistics and/or Max-Eigen statistics generated. On the other hand, the third columns report the critical values at the five per cent levels whereas the last column reports the probability values of each test.

Table 3: Unrestricted Cointegration test Rank Test (Trace)

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Prob.**
None *	211.22	69.81	0.000
At most 1*	109.95	47.85	0.000
At most 2*	59.61	29.79	0.000
At most 3*	22.59	15.49	0.003
At most 4*	8.30	3.84	0.004

Trace test indicates 5 cointegration equation(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**Mackinnon-Haug-Michelis (1999) p-values

In Table 3 the trace test indicates that there are 5 cointegration equations at 5 percent significance levels. This is realised by comparing the trace statistics and the critical values. In this case the trace statistics of all equations are greater than the critical values, for example, 211.22 is greater than critical value of 69.81. This process is done until the study finds that at most 5 cointegrating equation trace statistics of 8.30 is greater than critical value of 3.84. The presence of the cointegrating equations confirms the existence of the long run relationship among the variables involved.

Table 4: Unrestricted Cointegration test Rank Test (Maximum Eigen value)

Hypothesized No. of CE(s)	Max-Eigen Statistics	0.05 Critical Value	Prob.**
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None *	101.26	33.87	0.000
At most 1*	50.34	27.58	0.000
At most 2*	37.02	21.13	0.000
At most 3*	14.29	14.26	0.049
At most 4*	8.30	3.84	0.004

Trace test indicates 5 cointegration equation(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**Mackinnon-Haug-Michelis (1999) p-values

The maximum eigenvalue test in Table 4 above also indicates the existence of five cointegrating equation at 5 percent level of significance. This shows that long equilibrium relationship exist among all the variables under study (household expenditure on medical services, household disposable income, consumer prices on food, consumer prices on education, and consumer prices on medical health). Since the presence of cointegration has been confirmed by the Johansen cointegration test results, the next step is to verify the existence of the short run economic relationship among the variables by applying vector error correction mechanism (VECM), not the ordinary VAR. According to Hurley (2010) VECM is a special type of restricted VAR that is introduced in this paper to correct a disequilibrium that may shock the whole system and to study the interaction between the variables in the system. The added advantage of this procedure is that direction of the causality test can be established through this model, since, unlike the standard Granger causality test, VECM takes into consideration an additional channel of causation through the error correction mechanism (ECM) term. The ECM is included to investigate the dynamic behaviour of the model, that is, the dynamics of the short run and the long run.

Table 5: Vector Error Correction Estimates

Cointegrating Eq: Standard errors () T-statistics []					
LOG MDS(-1)	1.000				
LOG_HDY(-1)	-0.8456 (0.2208) [-3.8297]				
LOG_PRFD(-1)	1.3946 (0.2785) [5.0059]				
LOG_PRIH(-1)	-0.6219 (0.1398) [-4.4482]				
LOG_PEDC(-1)	-0.1838 (0.08274) [-2.2220]				
C	-2.3605				
Error Correction	<i>D(LMDS)</i>	<i>D(LHDY)</i>	<i>D(LPRFD)</i>	<i>D(LPRIH)</i>	<i>D(LPEDC)</i>
ContEq1	-0.5896 (0.0883) [-6.6782]	-0.0945 (0.1719) [-0.5497]	-0.5301 (0.5278) [-1.0043]	-0.1698 (0.4520) [-0.3756]	-1.5955 (2.5075) [-0.6363]

The estimation of VECM requires that the model selects the lag length, the number of lags in the model has been determined according to Schwarz Information Criterion (SIC). According to the lag length that minimises the SIC is 1, see Appendix A. The first part of Table 5 above presents the estimates of the cointegrating equation in the long run while the second part shows the rest of error correction model. The first row in the second part presents the speed of adjustment coefficient for each variable under investigation, their standard errors and the t-statistics. Adamopoulos (2010) indicates that the size of the error correction term (EC) shows the speed of adjustment of any disequilibrium towards a long run equilibrium state. The adjustment coefficient of cointegration (ContEq1) of -0.5896 is approximately 58 percent for household medical expenditure. This estimated coefficient of EC of -0.5896 is statistically significant with the theoretically correct sign (negative sign) and a high *t*-statistic of -6.6782.

It is expected to be negative for equilibrium to be restored and it confirms that there is no problem in the long run equilibrium relationship between the dependent and the independent variables. The adjustment coefficient of household disposable income is 9 percent, the average price for food is 53 percent and the average price for health services is 16 percent. This means that about 58 percent the disequilibrium in household medical expenditure is corrected per year and only about 9 percent of the disequilibrium is corrected every year by the change in household disposable income.

Table 6 below presents some very interesting results. It shows that some of the coefficients are highly significant in their t-statistics and have expected signs both in long and short run. This paper will discuss each variable one by one. To start with, in the short run household income is -0.41, but considering the variable in the long run the coefficient is 0.42. From the results one may conclude that medical health expenditure is a normal good. The theory regarding income elasticity of demand for medical expenditure says that as your income increases, it implies an increase in your budget line ultimately allows you to consume more of goods that enhance health.

Price plays important role in determining the demand for a particular product. For this study it shows that consumer price for health products is negative at -0.633 in the short run, in which it is significant. This results are true in the sense that household may be price sensitive in the short run in terms of medical expenditure, but that will not last for long. Observing the long run of the variable it indicates that prices for health products is 0.417 and is significant in terms of its t-statistics. This finding in the long run is in line of expectations that price for medical expenditure is inelastic. The theory suggests that the demand for health expenditure is generally estimated to be price inelastic, meaning that individuals do not strongly reduce the amount of health spending in response to an increase in price.

Table 6: Estimation Results of the ARDL Model

Variable	Coefficient	t-Statistic
LOG_HDY	0.422551	1.310385
LOG_PEDC	-0.015787	-0.137804
LOG_PRFD	-0.454457	-1.217915
LOG_PRIH	0.417854	2.061088***
DLOG_PRIH	-0.633606	-1.804494**
DLOG_PRFD	0.277566	0.811370
DLOG_PEDC	0.041412	0.492154
DLOG_MDS(-1)	0.652781	2.586056**
DLOG_HDY	-0.417388	-0.954102
C	5.455850	2.248660
R-squared 0.992408		
Adjusted R-squared 0.990130		
S.E. of regression 0.066252		
Sum squared resid 0.131679		
Log likelihood 57.56780		
F-statistic 435.7064		
Prob(F-statistic) 0.000000		

The food prices and education expenses are included in this analysis to give an indication of opportunity cost. Understanding opportunity cost means is to forfeiting other resources to gain other resource. Here the study tries to get to know how individuals react when faced by critical spending decision between two competing products. In considering the effect of food prices in the short run the coefficient is 0.277, which is not according to expectations. In contrast in the long run the variables react according to expectations at the value of -0.45. This finding suggests that individuals may reduce their medical expenditure when faced by high demand of food expenditure. Similarly, this is observed when considering the effect of consumer prices on education.

DISCUSSION

The study investigated the impact of price elasticity on demand for medical expenditure in South Africa. To our knowledge, this the first paper that analyses the impact of price elasticity on demand for medical expenditure in South Africa by using an econometric approach. The order of integration was tested by the application of the ADF unit root test. The results indicate that the null hypothesis of non-stationarity cannot be rejected for any variables in the level form but stationarity was only achieved after first differences. The cointegration test results indicate the existence of a stable long run relationship between household medical expenditure and its determinants. Both the trace statistics and maximum eigenvalue statistics reject the null hypothesis of no cointegration. Based on the cointegration results, there is evidence to conclude that the regression is not spurious. Since all the three hypotheses are rejected, that is, the hypothesis of no cointegration, the hypothesis of one cointegrating relation and the hypothesis of two cointegrating relationships, the conclusion is that none of the variables contain stochastic trends, because that is the only way there could be as many cointegrating relationships as variables. The presence of the negative ECM coefficient and the fact it is also significant serves as evidence for the existence of a cointegration relationship among the variables of the household medical expenditure function. It also points out to the presence of long term causal relations between the dependent variable and the independent variables.

CONCLUDING REMARKS

South Africa is currently facing a severe medical cost crisis. This study is concerned with the impact of price elasticity on demand for medical expenditure in South Africa. The following questions were considered: What are the effects of price elasticity on demand for medical expenditure in South Africa? What are the determinants of demand for medical expenditure in South Africa? In relation to these research questions some conclusions can be drawn from the above results. The study concludes that in the long run prices for health products is inelastic and is significant. The findings also show that major determinants for medical expenditure are price of medical health, household disposable income and consumer price on food in terms of their coefficients. Based on the findings of the study we recommend that the policy makers should carry on with the idea of helping the poorer section of the South Africa community with reduction of the medical cost by implementing initiatives like NHI throughout the country.

APPENDIX

Appendix A: lag length selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	38.39848	NA	1.24e-07	-1.712742	-1.499465	-1.636220
1	309.6515	459.0436*	4.12e-13*	-14.34110*	-13.06144*	-13.88197*
2	331.8178	31.82849	5.09e-13	-14.19578	-11.84974	-13.35404
3	356.0481	28.57930	6.33e-13	-14.15631	-10.74388	-12.93196
* indicates lag order selected by the criterion LR: sequential modified LR test statistic (each test at 5% level) FPE: Final prediction error AIC: Akaike information criterion SC: Schwarz information criterion HQ: Hannan-Quinn information criterion						

REFERENCES

Adamopoulos, A. A. (2010). Financial development and economic growth – An empirical analysis for Ireland. *International Journal of Economic Sciences and Applied Research*, 3(1)75-88.

- Coovadia, H., Jewkes, R., Barron, P., Sanders, D. & McIntyre, D. (2009). The health and health system of South Africa: historical roots of current public health challenges. *Health in South Africa 1*. Lancet.
- Dickey, D. & Fuller, W. (1979). Distribution of the Estimators for Autoregressive Time Series with a Unit Root. *Journal of the American Statistical Association*, 74, 427-431.
- Gruber, J. & Lettau, M. (2004). How elastic is the firm's demand for health insurance? *Journal of Public Economics*, 88, 1273-1293.
- Hurley, D. T. (2010). A generalized impulse response investigation of U.S. long and short term interest yields and Asian holdings of U.S. treasuries. *Journal of International and Global Economic Studies*, 3, 68-86.
- Johansen, S. (1988). Statistical Analysis of Cointegration Vectors, *Journal of Economic Dynamics and Control*, 12, 231-254.
- Liu, S. & Chollet, D. (2006). Price and Income Elasticity of the Demand for Health Insurance and Health Care Services: A Critical Review of the Literature. Washington: *Mathematica Policy Research, Inc.*
- Manning, W.G, Newhouse, J.P, Duan, Keeler, & Leibowitz, N., (1987). Health Insurance and Demand for Medical Care: Evidence form a Randomized Experiment. *American Economic Review*.
- Mocan, H. N., Tekin, E. & Zax, J. S. (2004). The Demand for Medical Care in Urban China. *World Development*, 32, 289-304.
- Nahata, B., Ostaszewski, K. & Sahoo, P. (2005). Rising Health Care Expenditures: A Demand-Side Analysis. *Journal of Insurance Issues*, 28, 88-102.
- NHI (2011). National Health Insurance in South Africa: Policy Paper. *In: HEALTH* (ed.). Johannesburg: Department of Health.
- Ringel, J. S., D.Hosek, S., Vollaard, B. A. & Mahnovski, S. (n.d). The Elasticity of Demand for Health Care: A Review of the Literature and Its Application to the Military Health System. Rand Health.
- Schaay, N., Sanders, D. & Kruger, V. (2011). Overview of health sector reforms in South Africa. *In: DEVELOPMENT*, I. (ed.). London: Human development resource centre.
- Shafrin, J. (2009). Is health care demand elastic? *Healthcare Economist* [Online]. [Accessed 03 March 2013].
- Stassen, W. (2012). Medical scheme costs escalate while benefits decrease. *Health-e*[Online]. [Accessed 27 March 2013].
- Vannierkerk, J. P. (2010). National Health Insurance exposed. *South African Medical Journal*, 100.
- Wedig, G. J. (1988). Health status and the demand for health. *Journal of Health Economics* 7:151-163.
- WHO (2008). The World Health Report: Primary Health Care - Now More than Ever.
- XU, K., Evans, D. B., Carrin, G., Aguilar-Rivera, A. M., Musgrove, P. & Evans, T. (2007). Protecting Households From Catastrophic Health Spending. *Health Affairs*, 26, 972-983.

TALENT MANAGEMENT IN SOUTH AFRICAN UNIVERSITIES OF TECHNOLOGY: WOMEN IN LEADERSHIP

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ABSTRACT

Talent management is an integrated strategic and deliberate activity, which directs how organizations source, attract, select, train, develop, retain, promote, and deploy employees. The concept Talent Management is not new, nor foreign to the management lexicon. Internationally many management scientists and practitioners have engaged in the research and study thereof and many case examples exist as far as its successful implementation in organizations. Essentially the concept evokes images of organizations that manage through their strategic, tactical and functional decision-making processes, human capital capacity to achieve their unique goals and objectives. The research done on the value of such systems implemented within particular organizations, consistently uncovers benefits in critical developmental and economic areas. However, upon seeking to effectively implement such methodologies, it may be prudent to consider talent management practices as a means to achieving goals and objectives in a particularly organisation-specific context. Therefore, in South African universities of technology the need exists to also apply talent management practices seeking not only to install and retain the most qualified and valuable staff but also to put a strong emphasis on their development and to harness their inert potential. This paper reflects and reports on a longitudinal research project undertaken among South African universities of technology, to establish the current state of implementation and practice thereof. The research project comprises essentially a desktop survey of secondary research, augmented by comments and observations from the researchers (as participant observers), which hail from this sector. It concludes with a preliminary model, presented for critique and comment.

INTRODUCTION

It is often stated that people are an entity's greatest asset. It is often claimed that proper talent management or human capital management may contributively assist leadership development in organizations. Naturally, the accompanying questions are also as to "what is a good leader" and "what is leadership" in the context of particular types of organizations. This article seeks to re-enter the debate of the relationship between talent management and leadership development but attempts to redirect the focus toward talent management and leadership development among women in South African universities of technology. The article serves to initiate a concise explorative qualitative research investigation on the current state of women talent development and proposes a management model by which to approach this challenge. Some secondary research is presented and a participant researcher position is taken from which observations are made. It heralds a further step in a research process in this regard.

TALENT MANAGEMENT IN SOUTH AFRICA

It is not surprising that, with so much emphasis being placed on human resource management, and the need for a unique South African human capital development model, that new thinking in this regard may transpire frequently. Charlton (1993) mentions that it is necessary to conduct extensive research to inform on the development of a relevant (valid) leadership (development) model for South Africa.

The approach widely termed “talent management”, which incorporates the development of staff, has emerged and Maritz (in Meyer & Botha, eds., 2004: 421) mention that the challenges faced by South Africa and South African organisations necessarily forces organisations to reorganise themselves to become more pro-active in identifying, engaging and maintaining talent. South African organisations are increasingly experiencing a “shortfall in executive leadership talent due to increased competitiveness, black economic empowerment and anticipated growth...” (Maritz in Meyer & Botha, eds., 2004: 421).

In the case for talent management, especially among women, it is implied that a strategic and focused approach should be taken. Much emphasis is placed not only on hiring (acquiring) great talent within an organization, but also to retain and develop existing talent in order for an organization to achieve its particular women empowerment goals. Broadly speaking talent management is seen as encompassing all processes involved in planning human resource requirements, acquiring these resources through recruitment and hiring practices, developing and training the talent acquired and aligning the talent to the entity’s strategic goals to achieve the desired end results. According to Pillay, Subban & Qwabe (2008: 313) talent management is a “strategic intervention to help sustain and retain skills, thus improving performance. The management of talent is a business process and like any business process it converts inputs into outputs”.

Furthermore, Maritz (Meyer & Botha, eds., 2004: 422) claim that an approach entitled Strategic Talent Management may improve organisational performance: “Human resource and business perspectives must be integrated and senior manager must have the authority and skill to lead their organisations in the war for talent”. However, talent comprises more than merely the pool of employees in an organisation; it represents the whole of the existing sets of skills and capabilities that this pool of (in this case selected categories) employees’ human resources possesses. The principles of talent management inform on the true nature of this approach and are *inter alia* as follows:

- It is a belief that the creation and maintenance of a diverse and multi-level pool of excellent talent forms an integral part of the whole of the organisation’s strategy.
- It is important to be cognisant of the existing pool of talent prevalent within the organisation at any given time.
- It is an on-going process of optimising talent, which never stops.
- It places the individual on centre stage: It focuses on development of self-awareness, experiential learning, building individual strengths, coaching and continuous support.
- The talent pool comprises all levels of the organisation, thereby adding depth and strength to the organisation’s strategy (Maritz in Meyer & Botha, eds., 2004: 423).

According to Rothwell (2013), “Talent Management” is currently in the south African context a notion in search of a meaning and comprises a process of integrating efforts to attract the best, develop and retain the best. He identifies two approaches of talent management:

1. Traditional Talent Management programmes which focus on attracting, developing, training and positioning; and
2. Technical Talent Management focuses on attracting, developing, retaining, positioning and transferring the knowledge of their best high-level professional employees.

It is however not only the private sector that competes for the best minds and talent, as the public sector and the quasi-autonomous sector inclusive of universities of technology and other institutions of higher learning, too find themselves in a “war” for the best talent to ensure the achievement of their objectives. Universities of technology fall within this industrial and sectoral context. Since universities of technology reside under the guardianship of the South African Department of Higher Education and Training, women empowerment within the context of talent management receive high-level scrutiny; the Minister of Higher Education and Training has recently expressed concern that a combined total of R37,9 billion has been spent through the Sector Education and Training Authorities (SETAs), has between 2000 and 2010 but skills development in general still fall short of the demand from the Country’s growing economy. Government therefore is considering new regulations, which is set on improving the effectiveness and efficiency credentials of grants recipients. An important spinoff of such improved regulatory regime should be that targeted funding should be made to structured workplace

learning and experience to enhance strategic talent management processes. The new model will require that organisations ensure that 80% of discretionary grants by SETAs are earmarked for expenditure to address the scarce and critical skills and in particular focused on designated groups such as women (ETQA Officer, Education, Training and Development Practices SETA, Undated Letter).

Kim supports this viewpoint in that he states that “government is often at risk for brain drain, particularly in developing and transitional economies. Poorly planned government staff cutbacks, an aging work force, and competition from the private sector contribute to the brain drain in government.” (Kim, 2008: 638). In general Kim (2008) laments the state of skills development in South Africa and expresses concern that strategic skills development that will support transformation are ineffective. In its document called the Strategic Framework: Vision 2015 HRD Resource Pack the Department of Public Service and Administration in South Africa identified capacity development initiatives as the *first pillar* on which it will build the capacity of the public service. It states that “capacity development is at the centre of HRD as a profession” and that “interventions related to capacity development sought to identify strategic interventions which could add the highest value to the public infrastructure for developing the capacity of people” (DPSA, 2008: 12). The main focus of the capacity development strategies identified in the *first pillar* is leadership development management strategies and it is on this area within talent development that this debate seeks to focus.

An organisational human resources strategy for leadership development

Any well-structured organisational strategy and associated business plan and processes provide direction for the modalities associated with a human resources strategy for such an organisation. A human resources plan in the conventional sense includes processes associated with selection, appraisal, development and rewards for performance. The implication however, is that the appropriate people need to be selected, and such people should be appraised and subsequently their development needs and performance rewards should be aligned to particular competencies and behaviour (Charlton, 1993: 173).

These processes are however dependent on the organisation’s ability to identify specific competencies among its selected (in this case women) group, which form the basis of organisational success. The question may therefore be posed as to what constitutes a good (women) leader in an organisation? Which skills, craft or knowledge do we need to achieve our goals and objectives? What type of attitude and behaviour are appropriate? Such identified competencies will then in turn inform on which (developmental) interventions should be made to ensure or enhance organisational success.

The roles of leadership development

Leadership development performs a number of roles. According to Conger and Benjamin (1999) therefore, leadership development:

- prepares people for leadership roles and it contributes to the improvement of the effectiveness of those already in leadership positions;
- serves to promote acceptance of the vision, values, and mission of a collective by those occupying positions in which leadership is exercised, and it seeks to ensure that those in leadership positions are committed to their realisation;
- is used as a strategic intervention through the use of action learning, task forces etc., which ensures that learning is utilised in order to help the organisation adapt to change; and
- develops leadership skills throughout the organisation to create a *community of leaders*.

The first two roles and the fourth one are in agreement with popular definitions of leadership; while the third role indicates that leadership development can also constitute a direct intervention aimed at bringing about change.

UNIVERSITIES OF TECHNOLOGY

A university of technology such as the Tshwane University of Technology (TUT) in South Africa in particular, seeks to remain in touch with and responsive to the needs of its environment and community, be it the labour market, its students, its stakeholders or civil society in general. South African universities of technology are appreciative of the fact that they are located within a state constituted on the principles of developmentalism. Therefore, community engagement is encouraged in both a formal manner, such as interactions that are linked to the curriculum (work-integrated learning or service projects), and a non-formal manner, such as partnering with the community in outreach activities. What especially sets a university of technology apart from a traditional university is its focus on innovation and entrepreneurship, through to commercialisation. In this respect, the Tshwane University of Technology advances its entrepreneurial flair and informs its curricula by promoting cutting-edge research and innovation – activities that are governed by a need for application or problem-solving and which, ideally, lend themselves to commercialisation. Research and innovation are seen as dynamic trans- and multidisciplinary processes that rely on partnerships and networks that collaborate to come to fruition. A university of technology emphasises teaching and learning through means of cutting-edge technology. Technology in this regard, is defined in its broadest sense as the efficient and effective application of expertise. The processes of technological innovation, technological transfer and the commercialisation of technology form the basis of all educational activities at TUT. Yet, to fulfil their respective missions and visions, universities of technology require skilled and experienced staff and the acquisition, retaining and development of such staff is dependent on a comprehensive regulatory framework as well as necessary organisational directives. It thus stands to reason that women empowerment should form integrally part of such institutions' staff development and leadership and management strategies.

Applicability

It may be postulated that the roles of leadership development discussed *supra* are applicable not only to business organisations, but also to the development of leadership in the public sector and quasi-autonomous entities such as higher education institutions. For instance, the development of women leadership in universities of technology aims to prepare them for leadership roles, and provides them with the skills they need to further higher education in the country. It emphasises the importance of leadership work such as creating values, vision and mission that guide an organisation to achieve its goals. It may initiate change by helping students to apply what has been learned within society.

Fulmer and Goldsmith (2001: 317) in their research into the best practices in leadership development found that the best programmes:

- build awareness of external challenges, emerging strategies, organisational needs and how to meet those needs;
- employ learning tools that helps to recognise potential external change, envision the organisation's future, and focus on actions their organisations can take to create its envisioned future;
- tie leadership development programmes to solving important, challenging business issues
- align leadership development with performance assessment, feedback, coaching and succession planning; and
- assess impact of the leadership development process on individual behavioural changes and organisational success.

In research to establish what some outstanding organisations do to develop leaders for the future, conducted by Vicere and Fulmer (1997), it was found that such organisations tend to differentiate between *leaders* and *management*. This however, is not a novel finding (Kotter, 1990). Yet, a leader's role is to anticipate the future and to introduce the changes required for coping with the perceived future state – which entails providing direction through vision, mission and innovative strategy – and they focus on providing the required knowledge and skills through their programmes. Moreover, they emphasise the values that should guide others and the organisation, and provide for the development of interpersonal skills. For assessment, 360-degree feedback is used to provide participants with insight and to give direction to, and motivation for change. They also create opportunities to apply what has been learned within the organisation. The findings of both studies have implications for different types of organisations.

Current state of women leadership and women in leadership positions

The current gender imbalances in this area has been highlighted by a variety of pieces of legislation, reports etc. The efforts of government to identify the gap were welcome and applauded. The White Paper on Higher Education published in 1997 states that “the composition of staff in higher education fails to reflect demographic realities”. Black people and women are severely underrepresented, especially in senior academic and management positions. In addition the South African Employment Equity Act, 1998 (Act 55 of 1998) expresses itself as far as the redress is concerned as far as historical imbalances are concerned. The purpose of the Act is to achieve equity in the workplace by:

- a. Promoting equal opportunity and fair treatment in employment through the elimination of unfair discrimination; and
- b. Implementing affirmative action measures to redress the disadvantages in employment experienced by designated groups, in order to ensure their equitable representation in all occupational categories and levels in the workforce.

The issue and concern of lack of vehicles to address the issue of women development were also raised in Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in the Public Higher Education Institutions (November 2008). The issue was also highlighted as a matter of concern in the country’s Educational National Plan (July 1997).

According to the Higher Education Management Information System (HEMIS) the number of female academics grew by 182 individuals per annum over the period 2001-2010 from 5560 in 2001 to 7353 in 2010. The growth is positive but still inadequate; hence the purpose of this paper to interrogate the relatively slow growth trajectory and progress of women into senior positions in South African tertiary education institutions. The figure below provides statistics on the number of men and women in the South African academia. Only professors, deans and senior lecturers are considered in this case.

Table 1: Headcount of academics by gender and rank (2002, 2006 & 2010)

Rank	2002			2006			2010		
	Women	Men	Total	Women	Men	Total	Women	Men	Total
Professor	292	1670	1962	383	1658	2041	480	1601	2081
Associate Professor	313	917	1230	517	1137	1654	594	1186	1780
Senior lecture	1422	2404	3826	1680	2458	4138	1867	2437	4304
Lecture	3070	3032	6102	3134	3020	6154	3547	3333	6880
Junior lecture	444	377	821	491	412	903	482	366	848
Total	5541	8400	13998	6205	8685	14974	6970	8923	15893

(Taken from: The SABPP Women’s Report 2012:14)

The table confirms that despite government efforts to address the issue, factors exist that prevent women’s upward mobility to higher positions in academic institutions. Some factors, which may contribute thereto may include:

- Lack of leadership commitment when it comes to employment equity even if it is driven by a legal compliance.
- Slow progression and advancement of women. Efforts by staff development, promotion policies etc. failed to close the representivity gap.

A Ministry of Higher Education and Training’s Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions was repeatedly told by institutions that funding for staff development and, more in particular, for nurturing and mentoring black staff members to take up level positions, was either inadequate or ineffectively expended (see reference to this matter *supra*). For this reason, the recommendations that dedicated programmes and funds be availed for staff development. Such funds

could be provided as part of the state subsidy through the SETA-processes to higher education institutions and matched by institutional funding. The provision of earmarked funds should be based on the submission of institutional plans that address the question of staff development.” (Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions: 30th November 2008. Final Report).

In the above context the researchers as participant observers have noted that South Africa has 23 institutions of higher education; seventeen universities and six universities of technology. And consequently, as a case in point, the Tshwane University of Technology as the largest university of technology in South Africa and the African continent should act as a strategic leader in the quest for women leadership development. The Tshwane University of Technology reflects the following statistics:

Figure: 1 Size of the University

UNIVERSITY	NUMBER OF FACULTIES	NUMBER OF DEPARTMENTS	NUMBER OF STUDENTS
TUT	7	57	52168
TOTAL	7	57	52168

Figure: 2 Top Executive positions

Position	Women	Men
Vice Chancellor	1	-
Deputy Vice Chancellor	-	3
TOTAL	1	3

Current research is still underway to establish overall the equity breakdown of Tshwane University of Technology, which will be revealed once a comprehensive process of appointments are complete by end-2013 for executive-level contract positions. However, current observations as to the relative ineffective absorption of women into executive positions may point towards factors such as a lack of an integrated strategy and associated implementation model to further the objectives of Government with regards to women advancement. An additional factor may be that many women who do elect to enter into academia, do so with due cognisance of their additional responsibilities as mothers and domestic concerns. Academia is regarded as an occupation which tends to by virtue of its architecture be construed as an opportune position for such women. Once however, executive or more supervisory level opportunities arise, women find that their flexibility is compromised. If in the research this postulation is proved as an additional factor, it would indicate that not only leadership and skills development interventions need attention but also finding ways in which to seek means which to accommodate women and address such challenges.

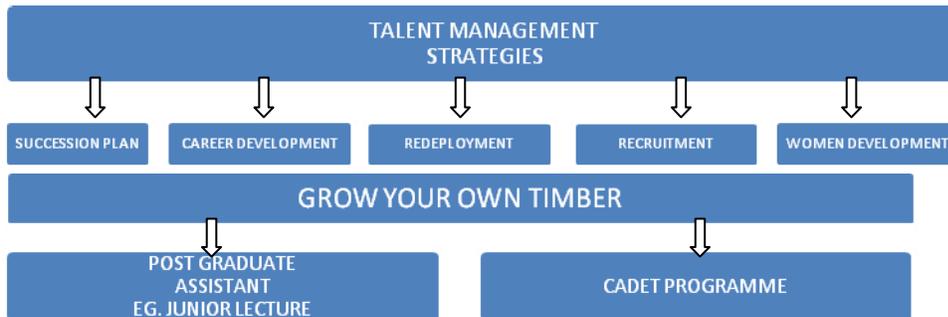
PRELIMINARY MODEL FOR INTEGRATED TALENT MANAGEMENT IN UNIVERSITIES OF TECHNOLOGY AND CONCLUSION

Following is a model which as a preliminary intervention to improving women leadership development as part of a comprehensive talent management strategy, may contribute to this challenge in South African universities of technology. Each of the elements in the following model is set on addressing the challenge of women advancement from a particularly functional perspective. It should be noticed that it is necessary to have particular strategies concerning succession planning, career development, redeployment, recruitment and specific women development.

Over and above a strategy to attract appropriate staff from outside, and especially from the educational sector and industry as well as the direct economy (bearing in mind the vocational and applied sciences nature of a university of technology), the “grow your own timber” concept finds bearing. Candidates should be identified, subjected to assessment center formalities and processes and thereafter carefully nurtured and mentored, thus exploiting their potential.

The cited model makes allowance for young graduates to be provided with academic and administrative positions on different levels, starting at even the lowest such as junior lecturer in the case of an academic candidate and thereafter to subject such candidates to a “cadet programme”, which is carefully designed to attend to the leadership and other skills sets required by the organisation in the context of its needs, the industry as well as broad based women empowerment.

Table 1: Talent Management Strategies



In addition the services of organisations such as the Higher Education Resource Services organisation (HERS-SA), which was founded to address the critical shortage of women in senior positions in higher education sector, may be utilised. The purpose of the academy is to address critical shortage of women in senior positions in the Higher Education Sector in South Africa. HERSA-SA academy offers a variety of activities such as, short professional development workshops, networking opportunities, awareness raising interventions to women currently employed or possessively the potential to be employed at the senior management level, creating an avenue for talent management pool. The workshop and mini workshops takes place annually.

In particular, two HERS-SA services are deemed as important being, *to ensure that structured and targeted development is provided* and *to assist to formulate gender-sensitive human resources policies and practices wherein training strategies may be achieved*. It should be mentioned that an implementation strategy for gender empowerment should generally assist in building a rigorous monitoring and evaluation system for women empowerment interventions, carry buy-in from all stakeholders and key decision makers, include extensive coaching and mentoring practices and make provision for strategy governance through the establishment of a steering committee and a Taylor-made include competency model.

This paper sought to introduce the current research which the authors have embarked upon in an attempt to address the current critical shortfall concerning women representivity in universities of technology in South Africa. The research project is currently still underway and final conclusions and recommendations are not due for some time still. However, this paper is an attempt to share as well as to solicit information concerning this topical issue with an international audience. Any comments and would be well-appreciated.

REFERENCES

Bosch, A. Ed. August 2012. “The SABPP Women’s report 2012”. South African Board for People Practices (SABPP). Johannesburg: University of Johannesburg, Faculty of Management.

Charlton, G. 1993. “Leadership: The Human Race. A Guide to Developing Leadership Potential in Southern Africa”. 2nd. Edition. Kenwyn: Juta & Co, Ltd.

Conger, J.A. 1992. “Learning to lead: the art of transforming managers into leaders”. San Francisco: Jossey-Bass Publishers.

Conger, J.A. and Benjamin, B. 1999. “Building leaders: how successful companies develop the next generation”. San Francisco: Jossey-Bass Publishers.

Fulmer, R.M. and Goldsmith, M. 2001. "The leadership investment: how the world's best organizations get strategic advantage through leadership development". New York: AMACOM.

Kotter, J.P. 1990. "A force for change: how leadership differs from management". New York: Free Press.

Meyer, M. & Botha, E. 2004. 2nd. Edition. "Organisation Development and Transformation in South Africa". Durban: Lexis Nexis Butterworths.

Mnguni, N. Undated. ETQA Officer. "Improved Grant Regulations to Usher in New Era of SETA Performance". Department of Higher Education and Training.

Pillay, P. Subban, M. & Qwabe, B. October 2008. "Talent Management - Putting the right people in the right jobs". Journal of Public Administration. Vol. 43 number 3.1.

Rothwell, W. J. "Technical Talent Management & Succession Planning Workshop". 10-12 April 2013. Salvo Global PTE LTD. Johannesburg. Unpublished lecture.

South Africa, Republic. "Employment Equity Act, 1998". Act 55 of 1998. Pretoria: Government Printer.

South Africa, Republic. "White Paper on Higher Education, 1997". Pretoria: Government Printer.

South Africa, Republic. Department of Education. "Report of the Ministerial Committee on Transformation and Social Cohesion and the Elimination of Discrimination in Public Higher Education Institutions". 30 November 2008: Final Report. Department of Education. Pretoria: Government Printer.

Vicere, A.A. and Fulmer, R.M. 1997. "Leadership by design". Boston: Harvard Business School Press.

FINANCIAL COSTS AS A BARRIER TOWARDS STUDENT EDUCATION IN AN EMERGING MARKET

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ABSTRACT

This paper addresses the predicament of finance costs incurred mostly by needy students when borrow from financial institutions or use institution's credit facility to further their higher education (HE) studies. A survey was developed and distributed to students (N=225) studying Personal Finance at a South African Higher Education Institution. The results indicate that many students are least informed about the conditions under which incur these costs and thus susceptible to exclusion risks. Consequently finance costs are termed silent barriers to higher education students' access and success.

INTRODUCTION

Access to higher education is under threat in South Africa because of the extra burden created by finance costs. These costs tend to jeopardize the democratic government promise to fund needy students up to undergraduate level. Kader Asmal, the former education minister, had vowed to aid needy students financially as he said it was crucial for meeting the government's statutory commitments of redressing inherited inequalities. In addition he wanted to enhance the expansion of higher education access to fulfill personal growth and developmental goals befitting a democratic society (DoE & DoL, 2003, 13).

The process was necessary to make up for inherited injustices, highly skewed privileges and opportunities which were based on racial and gender disparity in HE system (Cloete, Maassen, Fehnel, Moja, Gibbon, and Perold, 2006). The government's funding had since been established under National Students Financial Aid Scheme (NSFAS) though it is not free yet as needy students must still pay a portion of the utilized funds together with finance costs incurred. NSFAS together with the other two commonly used funding methods such as, the financial institutions loans (Eduloan) and HE institutional credit facilities do attract finance cost which is the subject of this paper. Johnstone, (2005) describes finance costs as extra charges to people with immediate needs but utilize resources of others, committing to future repayments plus additional fees, including penalties to compensate for earlier access. Del Rey and Verheyden (2011) assert that these costs occur due to ex-post moral hazard, perhaps because their negative impact to students who lack cash to pay upfront for their educational needs. The price tag is dependent on the period over which the debt is left unpaid or non compliance to credit terms.

Sadly only a few are aware of the timing and the conditions under which they incur finance costs or choose the cheapest method, thus failing to minimize or avoid these costs altogether. Worse still affected students suffer in silence, confirming the Trachtman, (1999)'s conclusion that discussing money matters is a taboo subject to many societies. Belsky and Gilovich (2009, p. 18) regards knowledge to be the best medicine for many of our ills; however students disempowered self by choosing to ignore financial matters that affect them (even when conditions are attached to a contract). The financial woes are thus perpetuated when they could be minimized when the subject of finance is openly discussed, to enable leaning from each other's past mistakes. This paper will focus on the challenges faced by students who borrowed money to gain access but lacked resources to continue their studies (Cele, 2008; 2009). In recent years HE institutions' demand settlement of outstanding balance as a condition for the following year's registration and many who struggle to comply fall

victim to exclusions. The burden is increased by the extra costs incurred when credit terms that formed part of their finance contract are not adhere to.

LITERATURE REVIEW

South African students, including NSFAS beneficiaries, are still subjected to finance costs which kick in the moment a student sign for a loan. Higher education minister Nzimande placed a limit on interest charged to student loans, starting from the year 2011 (Mahlangu, 2011, Sastudy, 2011). The new developments however do not quantify the real benefits for beneficiaries to understand, especially those with loans from prior periods who must still complete their studies. South African public expenditure on higher education increased substantially over the years (Pillay, 2010), although there is less positive effect on students' enrollment and success rate (Bergh and Fink, 2008).

Literature addressed the subject of financial illiteracy, highlighting the consequences and risk of uninformed financial decisions, (Lusardi and Mitchell, 2005), but little was said about how the finance costs inflate the borrowed amounts and how these costs impact on borrowers especially to the poor. The fact that they are least likely to obtain favorable credit terms, paying higher interest for market borrowing and insurance, than rich parents do (Cigno and Luporini, 2008, Abhijit and Duflo, 2010) is adding fuel to fire. Justifications for the disparities in borrowing terms between the rich and the poor are said to be as a result of the latter's inability to provide sufficient collateral as well as compensation for administration cost, for exposing lenders to higher non-payment risk (Menkhoff, Neuberger and Rungruxsirivorn, 2010). These costs silently affect people who are not sufficiently educated in finance or those who take things for granted. It confirms Lusardi's (2010) survey results which found that the majority of Americans' financial capabilities paint a bleak future. The financial incapacities result in failure to plan for predictable events like children's college education and providing for unexpected events or emergencies. Authors universally advocates the importance of financial knowledge as foundational, without which the health and well being of the society threatens to be eroded (Kezar, 2002; Morton, 2005; Godfrey, Illes & Berry, 2005). Contrary Illiteracy levels were found to be widespread among the young and old indiscriminative of the person's economic status, education standard and college graduates including those majoring in accounting and business (Lusardi and Mitchell, 2006; Rosacker, Ragothaman and Gillispie, 2009). The threads seem more realistic as Lusardi and Mitchell, (2006); Rosacker, Ragothaman and Gillispie's, (2009) research found widespread financial illiteracy levels among the young and old. The results were indiscriminative of the person's economic status, the education standard and college graduates including those majoring in accounting and business studies. ed, in these groups were.

Employers, governments and NGO's in many countries have undertaken initiatives to enhance financial literacy. Fox, Bartholomae and Lee (2005) found the need for financial education among Americans to be demonstrated with alarming rates of bankruptcy, high consumer debt levels, low savings rates, and other negative outcomes resulting from poor family financial management and low financial literacy levels. The conditions might have induced the saving campaigns and rigorous finance education and training of American government's in partnership with business, including high school course and investment knowledge (Lusardi and Mitchell, 2006; Peng, Bartholo-mae, Fox and Cravener, 2007). Japan and the Swedish pension privatization program also offered insights into possible roles for financial literacy (Lusardi and Mitchell, 2006; Loyns Palmer, Jayaratne and Scherpf, 2006) however the efforts still failed to improve the consumers' financial behavior. In other areas, trainees' subsequent behavior was unclear after acquiring skills in financial education (Mandell and Klein, 2009).

Literature's inability to diagnosis the root causes of financial woes do not presents the traps in ways that are explicit enough to caution people in their decision making. The fact that casual financial decisions not only severely impair on the individual's future but includes that of their families and the community at large (Howlett, Kees & Kemp (2008) and Loyns, Palmer, Jayaratne & Scherpf, (2006) demand a radical change to personal finance education. developments have brought little progress to personal financial literacy and maturity Linking the diagnoses with the effect is important enough to deter individuals from being causal about financial decisions. It is necessary to alter the notion that classifies finance as the subject of the elites, the wealthy or those tightfisted. As Peng, Bartholo-mae, Fox and Cravener, (2007) found financial experiences to be positively

associated with savings rates, perhaps being open about the subject can help individuals to reap the value of learning from each other's experiences and averts the future recurrence of similar mistake.

METHODOLOGY AND RESEARCH DESIGN

The research aimed to investigate the impact of finance costs to students' ability to successfully complete their studies and how these costs can be minimized or eliminated. A questionnaire was designed to enable collection of quantitative data. The study could stimulate the investigation of the actual causal factors contributing to financial crisis that prevents many students from successful completion of studies. The respondents were undergraduate students ($N=225$) studying Personal Finance at a South African Higher Education Institution. This study follows a descriptive format with results displayed in terms of frequencies and percentages.

The study was induced by students' enquiries, unsettled by the unexpected increase of their debt which threatening their ability to continue their studies in following years. Many continue to be excluded on financial grounds (Letseka, Cosser, Breier and Visser, 2010; Cele, 2008; Cele, 2009) because Institutions demand settlement of prior year's debt as a pre-condition for the following academic year's registration. The relaxation of exclusions laws are some of the demands cited as reasons for continued disputes and students' unrest at different higher education institutions across the country (Plaatjie, 2008, Yang, 2011; London Assembly, 2011, Luescher-Mamashela, 2011).

RESULTS

The results of the research are presented in Table 1 below. From Table 1 it is evident that the respondents are generally uninformed about the financial implications of their studies. For example 73.8% of the respondents indicated that they are uninformed about their FUNDISA education investment, 75.11% indicated that they are not aware of the credit terms and conditions of their funding. In addition the respondents also indicated that they did not have sufficient knowledge to assist them with their choice of funding. The majority of the students also indicated that they are not aware of the penalties of non-compliance with financial funding. Finally more than half of the respondents indicated that they had to take a break in their studies because of financial reasons.

Table 1: Results of the Study

Questions and Categories	Frequency	Percentage
How is your higher education studies funded?		
Family income / credit/ Facility of Institution	78	34.67
Government fund/ partial loan	71	31.56
Full bursary / grant	34	15.11
Private financial institution loan	42	18.67
How informed are you about FUNDISA education investment?		
Well informed	31	13.78
Less informed	28	12.44
Uninformed	166	73.78
Do you know if family invested in the fund?		
Yes	19	8.44
Unable to judge	21	9.33
No	185	82.22
Aware of funding/loan /institutional credit terms & conditions?		
Yes	23	10.22
No	169	75.11

Not applicable	33	14.67
Knowledge helped in finance option choice?		
Yes	21	9.33
No	175	77.78
Not applicable	29	12.89
Do you/will you be able to comply with loan/funding requirements?		
Not always /default sometimes	88	39.11
Always/ try my best to comply	33	14.67
Unable to judge if I would meet the requirements	85	37.78
Not applicable	19	8.44
Are you aware of non compliance/default interest/penalties?		
Yes	18	8.00
No	138	61.33
Not applicable	69	30.67
Did you ever have a break in studies due to financial reason?		
Yes	126	56
No	72	32
Break for other reason	27	12

Table 2 below shows an analysis of the funding structure and interest of a student loan

Study year	Fund amount	Rebate	Interest %	Interest Amount	Year total	Balance owing
2009	35140.28	4889.08	7.6%	208.88	2317.61	32568.81
2010	28360	2836	5.2%	115.66	1350.61	26874.58

The results in Table 2 showed that irrespective of the Irrespective of the rebate (subsidy) of R2836: 2010; (R4889.08 - 2009), it caters more for the annual interest than reduce the loan burden of the student.

Table 3 below shows an analysis of the Total interest and Penalties that students should pay as a result of not meeting their financial obligations. The results clearly shows the negative impact on student's finances as a result of not being able to pay the requested amounts on time.

DISCUSSION AND CONCLUSION

Higher education institutions have a significant role to play in a nation's wealth with its hard-edged capacity to foster intellectual capital, economic growth, stimulate development and innovation in a 'knowledge economy'. However student access to higher education is under threat in South Africa because of the extra burden created by finance costs. This paper addressed the predicament of finance costs incurred mostly by needy students when borrow from financial institutions or use institution's credit facility to further their higher education (HE) studies. Since the government's promise of free education up to undergraduate level to needy students has not been realistic to many; the students and their families resort to alternative financing methods. Inability to make sense of financing method's terms and conditions inflated costs which tamper with the very objective to complete studies. The cost of accessing education in South Africa was tested against three common finance methods. These are the government's National Students Financial Scheme (NSFAS), private finance such as (Edu-Loan, bank loans etc.) and the Institutional Credit Facility. The Finance costs (include: interest, administrative fees and defaulter penalties), increase the burden of credit users, however ignorance limit their ability to minimize or eliminate these costs.

The results indicate that many students are least informed about the conditions under which incur these costs and thus susceptible to exclusion risks. Consequently finance costs are termed silent barriers to higher

education students' access and success. In addition the results also showed the additional financial costs incurred by students due to a lack of understanding and subsequent mismanagement of student funding.

Table 3 Analysis of the total interests and penalties payable by students

Total Owing Mid year R	Interest charges Mid year R	Penalties/ fees late registration R	Payment R	Date Paid	Total owing year end R	Interest charges year end R	Total interest & penalties R
4 108.30	25.15	300	- 1 507 - 3 389	01/03/11 20/09/11	74.00	56.04	381.19
28164	355.17	0	-28 000	24/08/11	317.92	254.49	609.66
16001	18.99	300	-5 000 -41 675	16/05/11 11/08/11	-23 506	93.94	412.93
23 009	107.28	0	-9 700 -42 000	22/02/11 27/07/11	-5 958	107.01	214.29
17 795	233.95	0	-4 178 0	30/06/11 02/11/11	23 231	894.94	1128.89
-636.56	0	0	-12 000	15/03/11	920.51	9.51	9.51
23 539.86	286.97	0	-1 000 -28 000	10/02/11 23/08/11	-1 198.41	188.43	475.40
25 285.00	384.90	0	-4 850 -36754.62	01/02/11 24/08/11	-3 114.54	258.87	643.77
15 149.63	251.80	0	0 -42 000	27/07/11	-217.96	0	251.80
7 092.97	94.80	0	0 -7 437.47	04/08/11	1 521.58	43.05	137.85
3 446.73	25.15	300	-1 000.00 -3 389.29	01/03/11 20/09/11	74.21	56.04	381.19

In conclusion the results of this study highlighted financial costs as a barrier towards further education of students in Higher Education Institutions. This information is useful to the relevant stakeholders such as higher educational government to redress student access policies and subsequent management of study costs. In addition the results of this research also showed that students should be educated as to how to manage the funds received for studying more effectively. South Africa is a developing country that is continuously being criticised for its low market efficiency and human development. The country thus cannot afford to lose future talent employees due to a mismanagement of student access and funding to higher education institutions.

REFERENCES

- Abhijit B. V. & Duflo E. (2010). Giving Credit Where It Is Due. *Journal of Economic Perspectives*, 2, 61–80.
- Belsky & Gilovich (2009). *Why Smart People Make Big Money Mistakes and How to Correct Them: Lessons from the Life-Changing Science of Behavioral Economics*. Simon & Schuster, New York, USA.

- Bergh A. & Fink, G. (2008). Higher Education Policy, Enrollment, and Income Inequality. *Social Science Quarterly*, 89, 1.
- Cele, M. (2008). The Contradictory and Complementary Relationship Between Student Constructive Engagement and Protest Strategies in South African Higher Education: Council for the Development of Social Science Research in Africa JHEA/RESA 6, 77–106
- Cele, M. (2009). Post-Apartheid Higher Education: The Role and Challenges Facing Student Activists, in Chimanikire D. P. (Ed.), *Youth and higher education in Africa: the cases of Cameroon, South Africa, Eritrea and Zimbabwe*. Codesria, Dakar.
- Cigno A & Luporini A. (2008). Scholarships or student loans? Subsidizing higher education in the presence of moral hazard. University of Florence, CESifo, CHILD and IZA and University of Florence, CESifo and CHILD. October 28, pp 1-32.
- Cloete, N; Maassen, P; Fehnel, R; Moja, T; Gibbon, T; & Perold, H. (2006). *Higher Education Dynamics: Transformation in Higher Education, Global Pressures and Local Realities*. Netherlands. Springer publishers.
- Del Rey E. & Verheyden, B. (2011). Loans, Insurance and Failures in the Credit Market For Students (April 13), CESifo Working Paper Series No. 3410. Available at SSRN: <http://ssrn.com/abstract=1808639> (assessed 15 November 2011)
- Department of Education (2003). Review of the Financing, Resourcing and Cost of Education in Public Schools. Government Gazette, Vol. 543, 14 March, Department of Education, Pretoria.
- Fox, J., Bartholomae, S. & Lee, J. (2005). Building the case for financial education. *Journal of Consumer Affairs*, 39: 195–214.
- Howlett E, Kees J. & Kemp E. (2008). The Role of Self-Regulation, Future Orientation and Financial Knowledge in Long-Term Financial Decision. *The Journal of Consumer Affairs*; Summer 42, 2, 223-241.
- Johnstone D B. (2005). Higher Educational Accessibility and Financial viability: The Role of Student Loans: World Report on Higher Education: The Financing of Universities II International Barcelona Conference on Higher Education, Global University Network for Innovation (GUNI) Barcelona, Spain, November 28-30, 1-25
- Leedy, D.P. & Ormrod, J.E. (2005). *Practical research planning and design*. (8th ed). New Jersey: Pearson Merrill Prentice Hall
- Letseka M, Cosser M, Breier M & Visser M. (2010). Poverty race and student achievement in seven higher education institutions. Student Retention & Graduate Destination: Higher education & labour market access & success. HSRC PRESS: Cape Town. South Africa.
- Loyns A.C., Palmer L., Jayaratne K.S.U. & Scherpf E. (2006). Are We Making the Grade? A National Overview of Financial Education and Program Evaluation. *The Journal of Consumer Affairs*, 40, 208-235
- Luescher-Mamashela T. (2011). Student involvement in university decision-making: Good reasons, a new lens International Journal of Leadership in Education (ILJE) Emerging Scholar Manuscript Competition Awarded Finalist. in the "Graduate Student Category"
- Lusardi, A. & Mitchell, O. (2005). Financial Literacy and Planning: Implications for retirement wellbeing', mimeo, Dartmouth College.
- Lusardi, A. & Mitchell, O. S. (2006). Financial Literacy and Retirement Preparedness: Evidence and Implications for Financial Education. Working Paper grant, from the Social Security Administration through the Michigan Retirement Research Center (Grant # 10-P-98358-5)

Lusardi A. (2008). Household Saving Behavior: The Role of Financial Literacy, Information, and Financial Education Programs, Dartmouth College and NBER. February Pp 1-43 (Assessed 22 October 2011)
http://www.clevelandfed.org/Our_Region/Community_Development/Events/Seminars/20080425_Fin_Lit/Lusardi_paper.pdf

Mahlangu D. (2011). Speaking my mind, one thought at a time, in NSFAS to be a world-class student financial aid scheme (Assessed 25 October 2011)
<http://dumirocks.wordpress.com/2011/07/25/nsfas-to-be-a-world-class-student-financial-aid-scheme/>

Mandell L. & Klein L. S. (2009). The Impact of Financial Literacy Education on Subsequent Financial Behavior. Association for Financial Counseling and Planning Education. *Journal of Financial Counseling and Planning* 20, 15-24

Menkhoff L., Neuberger D. & Rungkruxsivorn O. (2010). Collateral and Lending to Rural Households in Emerging Markets (Accessed 7 September 2011)
<http://www.microfinancegateway.org/gm/document1.9.47483/Collateral%20and%20lending.pdf>

Morton J. S. (2005). The interdependence of economic and personal finance education: [from socialstudies.org.questia.com](http://socialstudies.org.questia.com)

Plaatjie, R. S. (2008). The reactions of student organisations at the former Rand Afrikaans University to the restructuring of higher education. University of Johannesburg Library and Information Centre: 152.106.6.200

Peng T-C M, Bartholomae S, J. J. Fox & Cravener G. (2007). The Impact of Personal Finance Education Delivered in High School and College Courses. *Journal of Family and Economic Issues*, 28, 2.

Pillay P. (2010). Higher Education Financing in East and Southern Africa. Centre for Higher Education ransformation (CHET). African Minds, 4 Eccleston Place, Somerset West, South Africa.

Rosacker K. M. Ragothaman S. & Gillispie M. (2009). Financial literacy of freshmen business school students: College Student Journal. FindArticles.com http://findarticles.com/p/articles/mi_m0FCR/is_2_43/ai_n31977610/ (Accessed 6 September 2011)

Trachtman, R. (1999). The money taboo: Its effects in everyday life and the practice of psychotherapy. *Clinical Social Work Journal*, 27, 275-288.

Yang, L. (2011). World Education Finance and Higher Education Access: Econometric Analyses of International Indicators and the Implications for China. A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy (Higher Education) in the University of Michigan

Nzimande B. (2011). Argo supporting achievers <http://www.sastudy.co.za/> Anonymous: London Assembly 2011: Investing in future generations in Rubber bullets, moralisation and the 'full force of the law' will not quell the high degree of civil unrest in this country. The causes of these tensions must be tackled head on. 12 August 2011. Accessed 15/11/2011 on <http://blogs.lse.ac.uk/politicsandpolicy/2011/08/12/riot-tensions/>

PROFILING NON-USERS OF E-GOVERNMENT SERVICES: IN QUEST OF E-GOVERNMENT PROMOTION STRATEGIES

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ABSTRACT

Developments in information technologies are providing a lot of opportunities for organisations to diversify their service delivery channels. However, the success of new channels largely depends on their acceptance by intended users. This paper aimed at profiling non-users of e-government services in an effort to explore factors that need addressing in trying to promote usage of the channel. Data used in the analysis was collected from a total of 161 non-users of government services in Gauteng using a structured questionnaire. The results show that while lack of experience using the internet may be a contributing factor to non-usage of e-services among some citizens, the majority of non-users were experienced enough with the internet. The results also showed that non-users did not have very strong favourable attitude towards e-government services. Demographic factors were found to be insignificant in explaining differences in attitude among different groups of non-users. The implications of the findings on efforts aimed at promoting use of the internet as a delivery channel for government services have been highlighted in the paper.

INTRODUCTION

Wide appreciation exists of the opportunities to organizations created by developments in information technology, the internet in particular. Chau and Lai (2003) noted that the internet has compelled organizations in various business and service sectors to support their products or deliver their services online. While economic reasons commonly dominate reasons for adoption of e-services by private business organizations, adoption of e-government is often driven by both economic and social benefits. Some of these social benefits include the need to promote universal access to government services, increased transparency in government dealings and reduce corruption. According to the United Nations (2008), there are five main successive stages of e-government revolution. These are, in order of sophistication, the emerging stage, the enhanced stage, the interactive stage, the transactional stage and the connected stage. They described the stages as follows:

Emerging stage – As the first stage in the evolution process, this stage is characterized by government's online presence comprising mainly of a web page and/or official website and provision of mostly statistics information.

Enhanced stage – This stage is characterized by provision of more information online by government on government policy and governance. Links to archived information are also put in place thus allowing citizens easy online access to such things as government forms and reports.

Interactive stage – Apart from the features associated with the emerging and enhanced stage, the interactive stage is further characterized by online government presence that allows for government officials to be contacted for example through e-mail. In the interactive stage, government contact details including email, fax, telephone numbers and physical address are provided online.

Transactional Stage – The stage is characterized by two-way online interaction between government officials and citizens. During this stage citizens are able to conduct all stages on a transaction online. For example, citizens may be able to apply and pay for identity documents, passports or birth certificates online.

Connected Stage - This is considered the most sophisticated stage in the e-government evolution process. Among other things, it is characterized mainly by connections between government departments. In order for this to be possible, issues of interoperability have to be taken care of.

A quick review of e-government sites in Africa shows that most countries are still in the early stages of e-government development with most of them not providing transactional services. Despite this, the presence of official government websites often containing a wide range of information for almost all African countries bears testament to the fact that African governments have widely embraced the concept of e-government.

RESEARCH PROBLEM AND OBJECTIVES

While African governments have clearly embraced the concept of e-government, one challenge that most of them face is how best to ensure universal access and increased use of the services to its citizens. Stahl (2005) noted that while private businesses have the choice as to the type of customers to target their e-services to, governments are by mandate expected to serve each and every one of its citizens. Governments thus need to find ways of ensuring that as many people as possible are able to access e-services. Efforts aimed at ensuring increased use of e-government services need to pay particular attention to current non-users of the services with the aim of understanding them better. A good understanding of this group of citizens can enable government come up with better programs for targeting them with the aim of growing number of citizens making use of e-government services. This study aims at contributing to this understanding by examining the demographic profiles of non-users of e-government services in Gauteng, South Africa. The specific objectives of the paper are to (a) examine demographic characteristics (age, gender, education, income status) associated with non-use of e-government services (b) examine levels of experience with using the internet among non-users of e-government services (c) investigate the relationship between demographic characteristics of non-users of e-government services and their attitude of e-government services and (d) highlight the implications of the findings on efforts aimed at promoting use of e-government services among non-users of e-government services.

LITERATURE REVIEW

In marketing, it is commonly agreed that the key to customer satisfaction is in understanding their needs and providing products that meet identified needs. In practice, it is however difficult to come up with products that appeal to all customers. It is for this reason that companies often divide customers into different groups before deciding on how to target them. This process of dividing up a market into smaller and distinct groups of customers with similar needs or other characteristics that make them respond in a similar way to marketing efforts is referred to as market segmentation. It is important to note that while private organisations often have a choice as to which group of customers to target, the public sector by its mandate is supposed to be at the service of every customer. In such cases market segmentation is not aimed at helping decide on which groups to target at the exclusion of others but rather to help better understand the needs and characteristics of different groups of customers so as to help develop programs that better target them.

The market segmentation process involves a number of steps one of which is deciding on the segmentation base to use in dividing up a market. While there are several factors that can be used to segment markets, demographic factors tend to be more commonly used than most other factors. Demographic segmentation involves dividing up a market based on such factors as age, gender, race, income and education. Some of the reasons why demographic factors are commonly used in segmenting markets are because demographic information tends to be readily available and also because people in different demographic groups tend to be associated with different factors that make them behave differently. It is thus not surprising that studies on e-service adoption often include demographic variables as important factors worthy examining in trying to understand why some people adopt or do not such services.

James et al (2009) noted that many studies report differences in attitude towards new technologies between people in different demographic groups. One important characteristic of attitude is that it is relatively enduring which means that they persist over time unless something happens or is done to change them (Mpinganjira, 2012). It is important to note that attitude is commonly considered a factor of critical important in behavioural studies. This is due to the fact that as a measure of degree of favour or disfavour a close relationship

often exists between attitude and behaviour. As noted in the objectives, this paper profiles non-users of e-government services. Gender, age, income and education are the specific demographic variables of interest.

Gender – In most African societies including South Africa, women account for a larger percentage of the population compared to men. Despite this, many studies especially those conducted in developing countries often report lower levels of usage of information technologies among women than men (Wahid, 2007). Psychological differences between men and women may explain the differences that often exist between them in terms of use of technology. Koohang, (1987) observed differences in attitude towards technology between men and women. The hypothesis being put forward in this study is that:

H1: There are significant differences in attitude towards use of e-government services between male non-users and female non-users.

Age – Young people of today are undoubtedly growing up in a technological environment that is significantly different from that of their parents. In many areas students are being introduced to computers right from primary schools and in worst cases in high school. This was not the case for most people who studied their primary and high school levels prior to mid 1990's. It is thus not surprising that many studies report high usage levels of internet among younger people than among older people (Naseri and Elliot, 2011). One would thus expect high familiarity with internet in general among young people than older people. At the same time one would expect high levels of familiarity with internet to make one have favourable attitude towards adopting internet based services such as e-government. The following hypothesis will therefore be tested in the study:

H2: Younger non-users of e-government services have significantly higher levels of experience with using the internet than older non-users.

H3: Older non-users of e-government services have significantly more negative attitude towards e-government services than younger non-users.

Level of education - Most of the information and services available online are in English. For most people in Africa, English is not their first language. This means that for one to be able to use the internet they need not only to be able to read and write their first language but also have a good command of English. This often entails attaining higher levels of education. Nasri (2011) noted that people with higher levels of educational attainment are likely to also have an aptitude for computers. This may be due to growing use of internet in educational institutions as well as in offices of formal employment. Education is also important in that the knowledge one gets through it can serve as input in producing the ability for one to be familiar with how the internet works as well as services made available using it. For this reason this study proposes that:

H4: There is a significant positive relationship between level of education and experience with use of internet among non-users of e-government services.

H5: There is a significant positive relationship between level of education and attitude towards use of e-government services among non-users of e-government services.

Income – A report by Zickuhr and Smith (2012) noted that income levels remain a strong predictor of internet use. A number of factors may explain this. First is the strong correlation that often exists between education levels and income levels. In most societies high levels of education is associated with high levels of income and since high levels of education is associated with increased use of internet, the same will be the case with income. A related factor is the issue of access to internet infrastructure. Many people in Africa access the internet at office. High costs associated with accessing internet at home is a likely contributing factor to less people accessing internet from home. At the same time it should be noted that it is not everyone who has the privileged of having a computer with internet access at the office. Such privileges are often not made available to low level employees in organisations. The hypothesis put forward in this regard are that:

H6: There is a significant positive relationship between level of income and attitude towards e-government services among non-users of the services.

H7: There is a significant positive relationship between level of income and one's experience with use of internet among non-users of e-government services.

RESEARCH METHODOLOGY

This paper is based on part of a larger study on e-government. The focus of the paper is on non-users of e-government services provided over the internet by main stream government departments. Data used in the analysis was collected from a total of 161 respondents using a structured questionnaire. The study was conducted in Gauteng, South Africa. Gauteng was considered ideal location mainly because of its cosmopolitan nature. As the main economic hub of South Africa, Gauteng attracts people from all areas of South Africa. The views of the sample drawn from this area can thus also be seen in a way as views that take cognisance of what is happening not only in Gauteng in terms of e-government services but also in the different areas where the different people come from.

Non-probability sampling in the form of quota sampling was used to guide in selecting respondents. The aim was to get respondents from different groups based on such factors as gender and race. Respondents to the questionnaire were approached in different locations including offices and shopping malls and asked to respond to the questionnaire. Constructs of interest in this analysis include age, gender, level of education, level of income, level of experience using the internet and attitude towards e-government. Age, level of education level of income as well as level of experience using the internet were all measured as categorical variables that are ordinal in nature. These variables were treated as ordinal scales. Gender was measured as a nominal scale as respondents had to indicate by ticking either male or female. Attitude towards e-government was measured as a construct made up of five items. A five point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = neither agree/nor disagree, 4 = agree and 5 = strongly agree was used to measure each item. Cronbach alpha was used to test the reliability of the attitude towards e-government services construct. The results showed an alpha coefficient of over .8 which means that the scale was highly reliable. Statistical Package for Social Science (SPSS) was used to analyse all data collected using the questionnaire.

RESULTS AND DISCUSSION

Presented in table 1 are background characteristics of the respondents in the study. According to the statistics the respondents were relatively evenly spread on gender with 85 of the respondents being male while 76 were female. Percentage wise this represents 52.8 male and 47.2 percent female. Just over half of the respondents (54 percent) were less than 30 years of age while a total of 11.2 percent were 50 years and above. Those between the ages of 30 and 39 years old were 18.6 percent of the sample was 16.2 percent of the sample was between the ages of 40 and 49. It can thus be said that in terms of age the sample was largely younger in age with those below the age of 40 making up a total of 72.6 percent.

Educational level statistics show that the majority of the respondents can be considered to be moderately educated. Only 2 respondents representing 1.2 percent of the sample can be considered of low level education. These 2 indicated primary school as the highest level of education achieved. On the higher end, only 35 respondents had a bachelors degree and above. These presented a total of 21.8 percent of the respondents. 80 respondents representing just below half (49.7 percent) of the sample had high school as their highest level of education. This group was in terms of size followed by a total of 44 respondents (27.3 percent) who had a diploma as the highest qualification. Those with high school and diploma as the highest qualification together consisted of 77 percent of the sample.

When it came to income level measured as gross monthly income, the statistics in table 1 show that 38 respondents representing 23.6 percent were receiving an extremely low income of no more than R 1,000 per month. Actually a total of 73 respondents which represents 45.3 percent of the sample were in the low income group as their gross monthly income level was no more than R 5,000 per month. A total of 48.4 percent were in the middle income group earning gross monthly incomes of between R 5, 001 and R 20,000. Only 3 respondents representing 6.3 percent of the respondents were high income earners earning more than R 20,000 per month. Thus the sample consisted of mostly low and medium income earners.

Table 1: Non-users background characteristics - Descriptive statistics

	<i>Frequency</i>	<i>Percentage</i>
<i>Gender</i>		
<i>Male</i>	85	52.8
<i>Female</i>	76	47.2
<i>Age</i>		
<i>Less than 30 years</i>	87	54.0
<i>30 to 39 years</i>	30	18.6
<i>40 to 49 years</i>	26	16.2
<i>50 to 59 years</i>	13	8.1
<i>60 + years</i>	5	3.1
<i>Highest level of education</i>		
<i>Primary School</i>	2	1.2
<i>High School</i>	80	49.7
<i>Diploma</i>	44	27.3
<i>Bachelors degree</i>	32	19.9
<i>Masters and Doctorates</i>	3	1.9
<i>Income level (gross monthly income)</i>		
<i>R0 – R1,000</i>	38	23.6
<i>R1,001 – R5,000</i>	35	21.7
<i>R5,001 – R10,000</i>	35	21.7
<i>R10,001 – R20,000</i>	43	26.7
<i>R20,001 – R30,000</i>	7	4.3
<i>Over R30,000</i>	3	1.9
<i>Level of experience using the internet</i>		
<i>None</i>	9	5.6
<i>Beginner</i>	33	20.5
<i>Intermediate</i>	80	49.7
<i>Advanced</i>	39	24.2

Also presented in table 1, as part of the background characteristics of the sample, is the respondents perceived level of experience with using the internet. Respondents were in this case asked to indicate their level of experience with the internet by marking any of the four options given namely none, beginner, intermediate or advanced. The findings show that only 9 respondents representing 5.6 percent of the sample had no experience with the internet. This means that over 90 percent of the non-users of e-government services had some experience with the internet. The results actually show that 73.9 percent of the respondents considered their experience with the internet to be either intermediate or advanced. This shows that the majority of the respondents had the skills necessary for them to make use of online government services.

Table 2: Attitude towards e-government – descriptive statistics

	<i>Mean</i>	<i>Std Deviation</i>
- <i>Using internet to accesses government services is a good idea</i>	3.83	1.10
- <i>I like the idea of using e-government services provided through the internet</i>	3.83	1.12
- <i>Using e-government services provided through the internet is a pleasant idea</i>	3.77	1.09
- <i>Using e-government services provided through the internet is an appealing idea</i>	3.74	1.15
- <i>Using e-government services provided through the internet is an exciting idea</i>	3.77	1.19
<i>Overall attitude towards e-government services</i>	3.79	1.02

Table 2 presents findings on attitude towards provision of government services using the internet channel. One important characteristic of attitude is that one can measure its strength. Strength refers to one's level of favourability or unfavourability towards an attitude object. Since a five point scale, ranging from strongly

disagree to strongly agree was used to measure attitude in this study, mean values need to accordingly be interpreted as follows: values of less than 1.5 = strong levels of disagreeing; 2 or to the nearest of 2 = disagreeing; 3 or to the nearest of 3 = neutral (neither agree nor disagree); 4 or to the nearest of 4 = agree while 5 or to the nearest of 5 denotes = strong levels of agreement. According to the results in table 1, the mean values for the five items used to measure attitude towards e-government were between 3.74 and 3.83. The overall mean value was at 3.79. Although the values do not indicate very high levels of favourability towards e-government services they nevertheless show that in general non-users of e-government services have a favourable view on provision of government services using the internet.

Spearman rank correlation was done in order to test above hypotheses 2 to 7. The results according to table 3 show an inverse relationship between age and level of experience with using the internet (correlation coefficient = $-.176$). The results further show that correlation was statistically significant at 0.05 level of significance. Thus according to the results hypothesis 2 which states that younger non-users of e-government services have significantly higher levels of experience with using the internet than older non-users is hereby accepted. The results in table 3 also show an inverse relationship between age and attitude towards e-government services (correlation coefficient = $-.142$). This means that positive attitude towards e-government was associated more with younger people than with older people. However the correlation coefficient was not statistically significant. Thus hypothesis 3 stating that older non-users of e-government services have significantly more negative attitude towards e-government than younger non-users is not accepted.

In terms of correlation between level of education and experience with use of internet, the results show a positive but statistically insignificant relationship between the two variables (correlation coefficient = $.009$; $p > .05$). Hypothesis 4 which states that there is a significant positive relationship between level of education and experience with use of internet among non-users of e-government services is hereby not accepted. The results also show a positive but statistically insignificant relationship between level of education and attitude towards use of e-government services (correlation coefficient = $.090$; $p > .05$). Hypothesis 5 stating that there is a significant positive relationship between level of education and attitude towards use of e-government services among non-users of e-government services is thus also not accepted.

Table 3: Correlation Analysis

		<i>Attitude towards e-government</i>	<i>Level of experience with internet</i>
<i>Age</i>	<i>Correlation coefficient</i>	$-.142$	$-.176^*$
	<i>Sig (2-tailed)</i>	$.073$	$.026$
	<i>N</i>	161	161
<i>Level of education</i>	<i>Correlation coefficient</i>	$.009$	$.090$
	<i>Sig (2-tailed)</i>	$.913$	$.254$
	<i>N</i>	161	161
<i>Level of income</i>	<i>Correlation coefficient</i>	$.057$	$.204^{**}$
	<i>Sig (2-tailed)</i>	$.470$	$.010$
	<i>N</i>	161	161

Table 3 also presents results of the correlation analysis between level of income and attitude towards e-government services as well as experience with use of internet. The results show a positive but statistically insignificant relationship between level of income and attitude towards e-government services (correlation coefficient $.057$; $p > .05$). Hypothesis 6 which states that there is a significant relationship between level of income and attitude towards e-government services among non-users of the services is thus hereby not accepted. The results however show a statistically significant relationship between level of income and experience with use of internet at 0.01 level of significance. Hypothesis 7 stating that there is a significant positive relationship between level of income and experience with use of internet among non-users of e-government services is thus accepted.

With gender being a categorical variable testing for differences in attitude towards e-government between male and female respondents was done using independent sample t test. The results as presented in table 4 show that although male non-users had more positive attitude towards e-government services (mean = 3.91) compared to female non-users (mean = 3.65) the differences were not statistically significant. Thus according to

the results hypothesis 1 stating that there are significant differences in attitude towards use of e-government services between male non-users and female non-users is hereby not accepted.

Table 4: Differences in attitude towards e-government - Independent Sample T-test

	<i>Descriptives</i>			<i>T-Test for equality of Means</i>			
		<i>Mean</i>	<i>Std. Deviation</i>	<i>T</i>	<i>Sig. (2-tailed)</i>	<i>95% confidence interval of the Mean</i>	
						<i>Lower</i>	<i>Upper</i>
<i>Gender</i>	<i>Male</i>	<i>3.91</i>	<i>1.02</i>	<i>1.640</i>	<i>.103</i>	<i>-.054</i>	<i>.580</i>
	<i>Female</i>	<i>3.65</i>	<i>1.01</i>				

CONCLUSION AND RECOMMENDATIONS

From the findings a number of conclusions can be drawn and recommendations made with respect to level of non-users experience with the internet as well as the relationship between demographic background characteristics of non-users and their attitude towards e-government services. In terms of level of experience with the internet, the study shows that the majority of the respondents had medium to high levels of experience with using the internet. As internet skills are a prerequisite for anyone to make use of e-government services, it can be concluded that lack of experience with the internet cannot be used to explain non-usage on e-government services among the majority of the respondents. For people with good internet skills, promotion efforts need to therefore include other factors that may be preventing citizens from taking up usage of available services. For example, government may need to intensify its awareness campaigns so as to make sure that more people are aware of available services. At the same time government needs to pay attention to people with limited or no internet skills. This can be addressed through intensification of efforts aimed at making internet accessible to communities. As the study showed significant relationship between level of experience and age as well as income levels, special measures need to be put in place to make sure that training opportunities are being taken up by all people lacking the skills including older people as well as those from low income backgrounds.

From the findings it can also be concluded that while attitude is often considered a factor of great importance in trying to understand behaviour, the findings of this study show weak relationship between the two. This is evidenced by the fact that in general the respondents showed positive attitude towards e-government. Furthermore, the findings did not show statistically significant relationship between attitude and background characteristics of age, level of education and level of income nor did it show significant differences in attitude between male and female respondents. What this means is that amongst the non-users of e-government services, demographic factors are not good predictors of strength of attitude towards e-government. Public officials aiming at promoting use of e-government services need to understand differences in non-user attitude by exploring other factors that may explain attitude such as levels of trust associated with use of the internet to access government services. Such efforts would also help in finding factors that can be addressed on capitalised on in building on current favourable attitude towards e-government services.

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REFERENCES

- Aderonke, A. (2010). An Empirical Investigation of the Level of Users' Acceptance of E-banking in Nigeria. *Journal of Internet Banking and Commerce*, 15(1): 1-13.
- Chau, P. & Lai, V. (2003). An Empirical Investigation of the Determinants of User Acceptance of Internet Banking. *Journal of Organizational Computing and Electronic Commerce*, 13(2): 123-145.

James, W., Torres-Baumgarfen, G., Petkovic, G. & Havrylenko, T. (2009). A Psychological Profile of Users of Internet-related Technologies in Serbia and the Ukraine. *Journal of East-West Business*, 15(2): 119-140.

Koohang, A. (1987). A Study of the Attitudes of Pre-service Teachers toward the Use of Computers. *Educational Communication Technology Journal*, 35 (3), 145-149.

Mpinganjira, M. (2012). Consumer Attitudes, in Dos Santos, M. and Mpinganjira, M (Eds). *Consumer Behaviour: Understanding Consumer Psychology and Marketing*. Cape Town: Oxford University Press, Southern Africa (forth coming)

Nasari, M. & Elliott, G. (2011). Role of Demographics, Social Connectedness and Prior Internet Experience in Adoption of Online Shopping: Applications for Direct Marketing. *Journal of Targeting, Measurement and Analysis for Marketing*, 19 (2): 69–84.

Nasri, W. (2011). Factors Influencing the Adoption of Internet Banking in Tunisia. *International Journal of Business Management*, 6(8): 143-160.

Stahl, B.C. (2005). The Paradigm of E-commerce in E-government and E-democracy. In: W. Huang et al. *Electronic Government Strategies and Implementation*. IGI Publishing, pp. 1-19.

United Nation. (2008). From E-government to Connected Governance. UN E-government Survey 2008. United Nations, New York. Retrieved August 25, 2012 from <http://unpan1.un.org/intradoc/groups/public/documents/un/unpan028607.pdf>.

Wahid, F. (2007). Using the Technology Adoption Model to analyse internet adoption and use among men and women in Indonesia. *The Electronic Journal of Information Systems in Developing Countries*, 32:1-8.

Zickuhr, K & Smith, A (2012). Digital difference: Internet adoption over time. Retrived September 5, 2012 from <http://pewinternet.org/Reports/2012/Digital-differences/Main-Report/Internet-adoption-over-time.aspx>.

THE ROLE OF EXPORT DIVERSIFICATION ON ECONOMIC GROWTH IN SOUTH AFRICA: 1980 – 2010 A VECM APPROACH

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ABSTRACT

This paper examines the role of export diversification on economic growth in South Africa. The study uses annual time series data for the period covering 1980 to 2010. The Vector Error Correction Model (VECM) is employed to determine the effects of export diversification on economic growth. Possible factors that affect export diversification considered as independent variables in this study include gross capital formation, human capital, real effective exchange rate and trade openness. The results of the study reveal that export diversification and trade openness are positively related to economic growth while real effective exchange rate, capital formation and human capital have negative long run relationships with economic growth. The study recommends the continual implementation of trade liberalisation by the South African government. The South African government is also encouraged to promote the production of a diversified export basket through subsidisation and promotion of innovation and production of new products.

INTRODUCTION

The role played by export diversification on economic growth on a country's economy has raised much debate recently in the field of economics. The on-going debate is central on whether export diversification actually plays a role in the growth of the economy. Subjective evidence suggests that there are almost no current developed countries with extremely high levels of export concentration (Agosin, Alvarez and Bravo-Ortega, 2009). It is argued that export diversification makes countries less vulnerable to adverse terms of trade shocks by stabilising export revenues (Brenton, Newfarmer and Walkenhorst, 2007). This makes it easier to channel positive terms of trade shocks into growth, knowledge spill-overs and increasing returns to scale, creating learning opportunities that lead to new forms of comparative advantage (Brenton, *et al.*, 2007).

In most developing economies, the import substitution strategy has failed to promote the industrialization process. This led to export diversification failing to occur, as was expected, while the productive systems suffered a lot from high trade barriers and distorted relative prices (Nouira, Plane and Sekkat, 2009). Building new comparative advantage in new non-traditional exports, including labour intensive manufactures, still remains a crucial objective for small economies. Manufactured exports are believed to support sustained overall economic growth for several reasons, such that the demand for manufactured goods increased more with income increasing than the demand for primary products. Hence, growth prospects for a country's exports are increased by specializing in manufacturing. Policy makers may use export diversification as a source of economic growth in cases where the size of the domestic market is small and the existing export basket is concentrated in products that have inelastic demand. In such circumstances, diversification into non-traditional exports opens up new opportunities and new markets for firms (Chandra, Boccoardo and Osorio, 2007). More so, traditional exports are particularly vulnerable to exogenous shocks and face limited demand due to low income elasticity and declining terms of trade. Diversifying away from traditional exports is expected to raise growth rates and lower their variability (Samen, 2010).

In the 1950s to 1970s, the South African import substitution strategy was perceived to have no significant contribution to growth of the country. Due to that perception, additional measures were proposed to provide a further stimulus to export manufacturers. However, all these changes did not lead to South Africa experiencing export oriented growth. Instead, the increased economic isolation of the country and perceived threats from the international community to the survival of the economy of South Africa led to further import substitution investment. This time the import substitution was based on the strategic industry argument. Though this strategy was not justified on economic grounds but was on the perceived environment of economic warfare, the strategy was successful. It saw South Africa increasing production on products such as armaments, synthetic rubber, diesel engines and further extensions to the petrochemical industry, consequently leading to the growth of the economy (Du plessis, *et.al*, 2000). According to the world exports and imports data from United Nations (UN) for the period 1962 – 2000 it can be concluded that South Africa as an exporting economy has in the past experienced diversification levels which first increased, declined. At the same, the economy was becoming relatively more concentrated in exports between 1980 and 1995. The period of export concentration coincided with the period when South Africa was facing high levels of sanctions due to the apartheid regime. This was followed by an increase in export diversification during 1996-2000 (Naudé and Rossouw, 2008).

Edwards and Elves (2005) indicate that there was a slow but clear upward trend in the growth of non-gold commodity exports although it was slower in the 1970s than in the 1980s. Over the entire period, gold export volumes declined due to the collapse of gold prices and hence these non-gold commodities were basically the only source of export growth. That being the case Naude and Rossouw (2008) pointed out that South Africa experienced significant vertical export diversification since 1988, with the share of primary commodity exports declining from 71.8% to 46.2% from late 1980s to 2002. Real GDP has increased by 54% over the two decades and the real exchange rate was at a similar level in both years. In fact, the economy had become significantly more closed for reasons that are not attributable to either the exchange rate or economic growth.

The central objective of the South African trade policy has been to reduce the country's dependence on primary products, in particular the heavy dependence on gold, in the export basket. Total exports showed a trend of declining export concentration (more diversification) between 1996 and 1999. Petersson (2005) argues that this was largely due to a significant decline of non-monetary gold exports and the resulting decline of export concentration in aggregate of primary goods, crops and nonmonetary gold. In all the years but 2000, specialisation indices of the aggregate of primary and crops were in the range 0.048 to 0.068. The minor differences were largely caused by fluctuations in the export values of platinum and other metals of the platinum group. Export concentration of manufacturing products increased slightly up to 1993, followed by two years of declining specialisation and stagnation with minor fluctuation between 1996 and 2003. After the apartheid era South Africa abandoned the ISI strategy and became open to the international community and was able to sell its exports in a freer environment. This saw an increase in the production of products such as armaments, synthetic rubber, diesel engines and further extensions to the petrochemical industry, consequently leading to the growth of the economy (Du plessis, *et.al*. 2000). Trade liberalisation and the lifting of sanctions in the early 1990s were expected to promote trade growth. The central issue is whether these policy changes have produced sustainable export-led growth and diversification into non-traditional products? The second important question is whether diversifying into non-traditional export products was accompanied by economic growth and whether there is still potential for export-led growth in South Africa.

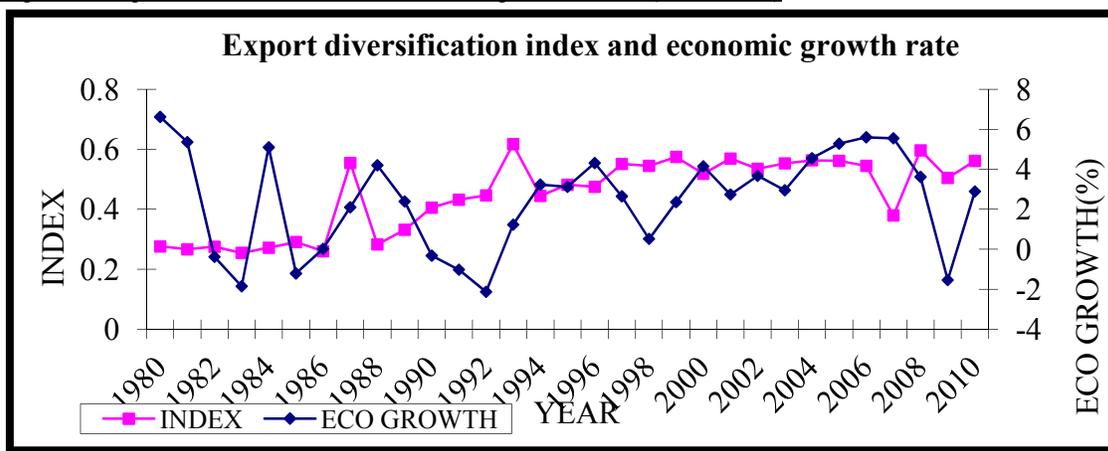
This paper is organised as follows; subsequent to this introduction section is a section on the overview of export diversification and economic growth in South Africa. Following the overview, is the theoretical underpinnings and empirical evidence that support this study. Methodology and analytical issues are discussed in section Four. Section Six reports the main findings of the study whilst the last Section concludes the paper.

AN OVERVIEW OF EXPORT DIVERSIFICATION AND ECONOMIC GROWTH IN SOUTH AFRICA

Faulkner and Loewald (2008) identify one of the central objectives of the South African government macroeconomic policy as to maximize the economic benefits that accrue due to globalization. This was to be achieved by increasing the foreign demand of the country's exports hence enabling excessive inward flow of foreign currency and capital into the economy. However, this could only be achieved if the country's exports

were more diversified to an extent that export instability could be reduced. In other words, the government aimed for export diversification by providing for a broader base of sustained export growth and less vulnerability to volatile world prices. In response to this, the government came up with supporting measures to promote other exporting industries which were facing competitive disadvantages in the foreign market, in the form of export subsidies. Figure 1 shows the trends of export diversification and economic growth in South Africa since 1980.

Figure 1: Export diversification and economic growth trends (1980-2010)



Source: SARB, 2012 and WTO, 2012

Figure 1 shows that on average, the increases in export concentration are associated with declines in economic growth though the relationship seems to be weak. From the early 1980s to 1986, the export concentration index was well below 0.3, suggesting high levels of export diversification. During the same period economic growth was very volatile ranging from more than 6% in 1980, to -1.85% in 1983. The main reason behind such experiences mainly lies with the volatility of the Rand due to the exchange rate regime adopted by the government during that time and high levels of political instability (Faulkner and Loewald, 2008).

In 1987 the South African export basket became more concentrated with the index increasing with more than 100% to 0.56 in 1987 from 0.26 in 1986. During the same year, economic growth also increased by a larger margin from 0.02% in 1986 to 2.10% in 1987. The larger part of growth in the economy was a direct result of increased production in minerals enhanced by favourable gold prices in international markets during the year (Edwards and Golub, 2004). Export concentration also increased significantly by 17.29% to 0.33 in 1989 from 0.28 in 1988. High concentration in a few exports products was caused by high barriers to trade that dominated the South African trade and industry policy. Associated with that export concentration increase, was a dramatic fall in GDP growth to less than 3%. Odhiambo, (2009) identified the causes of the dramatic decline to include trade and financial sanctions, political unrest, and debt crisis, which negatively affected prospects for substantial capital inflow especially from abroad.

Export diversification increased from 1994 to 1996, averaging 0.47. This period was also associated with extensive trade liberalisation, which saw the reduction in tariff lines and levels, the abolishment of trade sanctions and achievement of political stability. Although trade openness increased due to extensive trade liberalisation during the period of 1997 to 2010, the export concentration index averaged 0.55, and reached the highest of 0.59 in 2008. The 2008 export concentration index was relatively high suggesting that the South African export basket was becoming less diversified.

THEORETICAL UNDERPINNINGS AND EMPIRICAL EVIDENCE

Some of the theoretical underpinnings that support this paper are among others; the Linder hypothesis which was developed by Linder (1961) who hypothesize those nations with similar demands would develop similar

industries. The Prebisch Singer hypothesis (1950) which argues that, the terms of trade between primary and manufactured products deteriorate over time. Countries that export primary goods that do not have the means to manufacture goods to export will lose in the long run as their goods will become relatively cheaper than the manufactured ones. Apart from trade theories, growth models were also used in support of this paper. The endogenous growth theory sees diversification of exports from primary commodities into high skilled, high technology goods desirable because trade in these products allows for more scope for growth through productivity gains than traditional commodity exports. There are more opportunities for spill over effects in manufactured trade than in primary commodity trade.

A number of studies paid attention the relationship between export diversification and economic growth particularly in developed countries. Results from some studies showed that there is positive relationship between export diversification and economic growth whilst results from some studies found no relationship between the two variables. Studies that found positive relationships are among others; Hesse (2008), Agosin (2007), Arip, Yee and Karim (2010), Nowak-Lehmann (2006), Petersson (2005), and Brenton and others (2007). Studies that found a negative relationship between export diversification and economic growth are among others; Nicet-Chenaf and Rougier (2008) and Aditya and Roy (2009). They argue that too much export diversification may be detrimental to the economy.

METHODOLOGY AND ANALYSIS

To estimate the role of export diversification on economic growth in South Africa, this study uses a vector autoregression (VAR) model. A time series data set is created to estimate the relationship between the variables. Data was obtained from the South African Reserve Bank (SARB) online statistical query publications and World Trade Organisation website. To estimate the relationship between export diversification and economic growth the study modifies the model used by Arip, Yee and Karim (2010). In this study, GDP is explained by the normalised-Hirschmann index (measure of export diversification), stock of human capital, capital expenditure, real effective exchange rate and trade openness as shown by the following equation.

$$LnGDP_t = \beta_0 + \beta_1 LnNHI_t + \beta_2 LnHUM_t + \beta_3 LnCAP_t + \beta_4 LnREER_t + \beta_5 LnOPEN_t + \varepsilon_t \dots \dots \dots (1)$$

Where $LGDP$ =logarithm of gross domestic product per capita, NHI =Normalised-Hirschmann Index, $LHUM$ =logarithm of human capital formation, $LCAP$ = logarithm of capital formation, $LREER$ =logarithm of real effective exchange rate, $LOPEN$ = logarithm of trade openness β_0 = intercept and $\beta_1, \beta_2, \beta_3, \beta_4$ and β_5 = coefficients of the independent variables.

DEFINITION OF VARIABLES

$LGDP$ is the logarithm of real GDP. It represents the real domestic output in billion rands produced in South Africa adjusted for inflation. $LNHI$ refers to the Normalised Hirschmann Index, and is a way of measuring the extent of export diversification. The NHI is included in the model because it measures how diversified South African exports are (see Naudé and Rossouw, 2008). $LHUM$ is the logarithm of the stock of human capital. The stock of human capital refers to the skills, competency and experience vested in a country's labour. $LCAP$ is the logarithm of capital expenditure. Capital expenditure in this study represents fixed capital formation expressed in billion rands. $LREER$ is the logarithm of the real effective exchange rate of the rand. It is the weighted average of the Rand in relation to the basket of other South Africa's main trading partners. $LOPEN$ is the logarithm of trade openness. Trade openness shows the extent to which a country is involved in international trade activities with the rest of the world. ε = Error term, which represent the influence of omitted variables in the specification of the model.

MAIN FINDINGS

To avoid the possibility of drawing up conclusions based on statistically spurious relationships, all data series were tested for stationarity. The Phillips-Perron and Augmented Dickey-Fuller unit root tests were used and test results are presented in Table 1. For the most part, both the Phillips-Perron and the Augmented Dickey-Fuller results suggested that the null hypothesis of the presence of unit root in the variables in levels could not be rejected at 1% significance level indicating that the variables are non-stationary in levels. However, when the

variables are first differenced the null hypothesis of the unit root in each of the series was rejected at 1% significance level. Therefore it can be concluded that all the variables are integrated of order one.

Table 1: Unit Root Tests Results

	GDP	NHI	CAP	HUM	REER	OPEN
ADF						
<i>Level</i>	-1.691	-2.132	-2.507	-1.866	-3.045	-3.128
<i>First Difference</i>	-4.043***	-6.588***	-4.184***	-3.225**	-4.255**	-4.481***
PP						
<i>Level</i>	-0.980	-4.298**	-1.192	-1.288	-2.560	-3.622**
<i>First Difference</i>	-4.835***	-11.527***	-3.493**	-3.252*	-4.737***	-5.680***
***, ** and * represent significance levels at 1 %, 5 % and 10 % respectively.						

COINTEGRATION TESTS

Given that variables in this study are integrated of the same order, cointegration tests are performed to determine the existence of a long-run equilibrium relationship amongst the variables. Cointegration of variables means that the linear combination of the variables is stationary even though the individual variables will be non-stationary. The Johansen's (1991, 1995) maximum likelihood approach was used to test for cointegration. It can be deduced that an essential prerequisite in conducting the Johansen co integration tests and estimation of any VAR system is the selection of an optimal lag length. In this study, the optimal lag length was made by examining the lag structure in an unrestricted VAR originally specified with three lags and using VAR lag order selection criteria.

Table 2: Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	106.1874	NA	3.14e-11	-7.156242	-6.870770	-7.068971
1	281.8630	263.5134	1.56e-15	-17.13307	-15.13476*	-16.52217
2	338.1612	60.31952*	5.43e-16	-18.58294	-14.87180	-17.44841
3	398.5212	38.80283	3.55e-16*	-20.32294*	-14.89897	-18.66478*
*Indicates lag order selection by the criterion, LR: sequential modified LR test statistic (each test at 5% level), FPE: Final prediction error, AIC: Akaike information criterion, SC: Schwarz information criterion, HQ: Hannan-Quinn information criterion						

The Johansen cointegration technique used in this study also requires an indication of the lag order and the deterministic trend assumption of the VAR before performing cointegration tests. The information criteria approach is applied as a direction to choose the lag order. In this study, the selection is made using a maximum of 2 lags in order to permit for adjustments in the model and accomplish well behaved residuals. Table 2 presents results for the lag length selection criteria which show that sequential modified LR test statistic and the Schwarz information criterion selected 2 lags and 1 lag respectively, while the other information criterion selected 3 lags all the criteria selected 1 lag. Therefore, the Johansen cointegration test is performed using 3 lags.

Table 3: Cointegration Rank Test (Trace)

Hypothesised No of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical value	Prob**
None*	0.879012	174.7334	95.75366	0.0000
At most 1*	0.772498	115.5956	69.81889	0.0000
At most 2	0.728854	47.85613	74.13899	0.0000
At most 3	0.665194	29.79707	37.59623	0.0052

At most 4	0.207222	6.958543	15.49471	0.5825
At most 5	0.016175	0.456611	3.841466	0.4992
Trace test indicates 2 cointegrating eqns at the 0.05 level, *denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values				

Table 4: Cointegration Rank Test (Maximum Eigenvalue)

Hypothesised No of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob**
None*	0.879012	59.13780	40.07757	0.0001
At most 1	0.772498	33.87687	41.45665	0.5662
At most 2	0.728854	27.58434	36.54276	0.4527
At most 3	0.665194	21.13162	30.63769	0.3017
At most 4	0.207222	6.501931	14.26460	0.5497
At most 5	0.016175	0.456611	3.841466	0.4992
Max-eigenvalue test indicates 2 cointegrating eqns at the 0.05 level, *denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values				

Results from the much stricter Johansen cointegration trace test Table 3 reflected that at least two cointegrating equations exist at 5% significance level. The null hypothesis of no cointegrating vectors is rejected since the trace (test) statistic of 115.59 is greater than the critical value of approximately 69.81 at 5% significance level. However, the maximum eigenvalue test in Table 4 revealed that there is one cointegrating equation at 5% significance level. The null hypothesis of no cointegrating vectors is rejected since the max eigen statistic of 59.13 is greater than the critical value of 40. Therefore, it can be concluded that there are two significant long run relationships between the variables (using trace test results). Since variables can either have short or long run effects, a vector error correction model (VECM) is used to disaggregate these effects.

Table 5: Results of the long run cointegration equation

Variable	Coefficient	Standard error	t-statistic
Constant	-10.35165	-	-
GDP(-)	1.000000	-	-
NHI(-)	0.462022	0.11557	3.99790
REER(-)	-0.543505	0.09686	-5.61137
OPEN(-)	0.058409	0.22618	0.25825
HUM(-)	0.195425	0.08014	2.43849
CAP(-)	0.311734	0.08966	3.47681

The long-run effect of export diversification and other factors that are affect export diversification and growth can be illustrated as in equation 4.

$$GDP_t = -10.352 + 0.462NHI_t + 0.195HUM_t + 311CAP_t - 0.544REER_t + 0.058OPEN_t, \dots \dots \dots (2)$$

From equation 4 it can be deduced that HUM and CAP have a positive long run relationship with GDP. The results suggest that unit increases in HUM and CAP lead to an increase in GDP by approximately 0.195 and 0.311 respectively. In addition, NHI and OPEN have positive relationship with GDP in the long-run. The results in Table 5 suggest that a unit increase in NHI increases GDP by approximately 0.462%. The positive relationship between NHI and GDP is in consistence with theoretical under suggestions which argue that increased export diversification also increases GDP. On the same note, a unit increase in OPEN also causes increases in GDP of about 0.58%. According to the theory, openness can either have a negative or a positive relationship with GDP depending on the whether the trade has got relatively more exports to imports or vice-versa. REER has a negative coefficient in equation 4, meaning that an increase in the real effective exchange rate (depreciation) causes a decrease in GDP. A percentage decrease in the value of the rand, causes approximately 0.05841% increase in GDP.

Table 6: Error correction results

Variable	Coefficient	Standard error	t-statistic
DLGDP(-1)	0.084387	0.15637	0.53966

DLNHI(-1)	3.041284	0.77943	3.90192
DLREER(-1)	-0.361619	0.47613	-0.75950
DOPEN(-1)	1.074700	0.25073	4.28622
DLHUM(-1)	0.258141	0.55550	0.46470
DLCAP(-1)	0.399790	0.32489	1.23053

The coefficient of GDP is approximately 0.084 implying that the speed of adjustment is around 8.4%. In other words of the variation from the equilibrium for GDP, only 8.4% is corrected for annually. The correction happens during the time when the variable is moving towards equilibrium. This means that there is slow speed of adjustment of GDP which maybe reflect little pressure on the variable in restoring to the equilibrium in the long run due to any disturbance. The speed of adjustment is however not statistically significant with a t-value of around 0.5397. The slow speed of adjustment of GDP maybe interpreted as that there are other variables other than the ones specified in the model that affects GDP such as Interest rates, monetary policy, fiscal policy and demographic factors.

Diagnostic checks are also very important in the model because they validate the parameter evaluation of the outcomes achieved by the model. This is mainly because any existence of a problem in the residuals from the estimated model automatically translates into the inefficiency of the model leading to the estimated parameters being biased. The VAR model was subjected to diagnostic checks in this section. The fitness of the model was tested in three main ways. Firstly, serial correlation is tested using the language multiplier (LM) test, followed by the White test for heteroskedasticity and finally the Jarque-Bera for normality test. Diagnostic test results are shown in Table 9. Results presented in Table 7 suggested that there is no serial correlation, there is no conditional heteroskedasticity, and there is a normal distribution in the unemployment model.

Table 7: Diagnostics test results

Test	Null hypothesis	t-statistic	Probability
Lanfrage Multiplier (LM)	No serial correlation	9.263	0.613
Jarque- Bera (JB)	There is a normal distribution	0.525	0.769
White (CH-sq)	No conditional heteroskedasticity	566.07	0.268

CONCLUSIONS AND POLICY RECOMMENDATIONS

A number of policy implications can be deduced from the results and conclusions of this study. Based on the results of this study the South African government can be advised to continue engaging implementing trade liberalisation policies. The presence of a significant long run relationship between export diversification and economic growth implies that increased diversification in exported goods contribute positively to the growth of the economy. In other terms the South African government can embark on a policy in which it can subsidise small to medium scale firms that engage in the innovation and production of new products. The support to such firms will increase future possibilities of a diversified export basket for the country.

More so, the South African government should also take into consideration that trade openness is also a very important growth contributor. Hence, policy makers may be advised to also give positive attention to potential exporters and importers. In other words, the government can engage in export subsidisation and create policies such as reducing import tariffs and duties to create a more free trade environment. The country can also enhance trade openness by being involved in economic integration through joining of trade blocks. However, this must be done with caution due to the fact that increased trade openness and globalisation makes the economy to be more vulnerable to global shocks such as financial crisis and credit crunches occurring it the trade partners. The South African policy makers can also utilise the empirical findings of this study in influencing the level of growth in the country. Though the model used in the study did not consider all other factors that affect the growth of the economy.

REFERENCES

- Aditya, A & Roy, S.S. (2009). Export diversification and economic growth. Evidence from cross country analysis. Jadavpur University. [Online] Available: http://www.isid.ac.in/~pu/conference/dec_10_conf/Papers/AnwashaAditya.pdf.
- Agosin, M. R, Alvarez, R & Bravo-Ortega, C. (2008). Determinants of export diversification around the world: 1962-2000. University of Chile. [Online] Available: www.econ.uchile.cl/SDT.
- Arip, M, A, Yee, L, S & Karim, B, A., (2010). Export diversification and economic growth in Malaysia. [Online] Available: <http://mpira.ub.uni-muenchen>.
- Brenton, P, Newfarmer, R & Walkenhorst, P. (2007). Export diversification: a policy portfolio approach. [Online] Available: www.growthcommission.org [Accessed 25 February 2012].
- Chandra, V, Boccardo J, & Osorio.I. (2007). *Export diversification and Competitiveness in Developing Countries*. [Online] Available: www.siteresources.worldbank.org
- Du Plessis S, J, P, Smit, B, W & McCarthy, C, L., (2000). International economics, 2nd Edition. Heinemann publishers. Sandton: South Africa.
- Edwards, L & Golub, S, S. (2004). *South Africa's international cost competitiveness and exports in manufacturing*. World Development Vol.32, No.8. Elseiver Ltd. [Online] Available: <http://preview.swarthmore.edu/Documents/academics/economics/Golub%20and%20Edwards.pdf>
- Faulkner, D & Loewald, C., (2008). Policy Change and Economic Growth: A Case Study of South Africa. Working paper No.41. The International Bank for Reconstruction and Development.
- Herzer, D & Nowak-Lehmann, D, F., (2006). *What does export diversification do for growth? An econometric analysis, Applied Economics*. Routledge, University of Goettngen: Germany
- Hesse, H., (2008). *Export diversification and economic growth*. Working paper No. 21. The International Bank for Construction and Development. Washington, DC: USA
- Ickes, B. W. (1996). Endogenous Growth Models. Online available at <http://econ.la.psu/bic-kes/endogrow.pdf>.
- Linder, S. B. (1961). *An Essay on Trade and Transformation*, John Wiley and Sons, New York.
- Naudé, W & Rossouw, R. (2008). *Export diversification and specialization in South Africa: Extent and impact*. World Institute for Development Economics Research: [Online] Available: <http://www.csae.ox.ac.uk>
- Nicet-Chenaf, D and Rougier, E. (2008). *FDI, Diversification and Growth. An Empirical assessment for MENA countries*. Bordeaux University: France
- Nouira, R, Plane, P & Sekkat, P. (2009). Exchange rate undervaluation and export diversification: a deliberate strategy. Economic Research forum. Egypt.
- Odhiambo, N, M. (2009). Savings and economic growth in South Africa: A multivariate causality test. Journal of Policy Modelling 31. Elsevier Inc. [Online] Available: <http://ac.els-cdn.com/S0161893809000295/1-s2.0-S0161893809000295-main.pdf>
- Petersson, L. (2005). *Export diversification and intra-industry trade in South Africa*. South African journal of economics Vol 73:4. Blackwell Publishing. Oxford: United Kingdom.
- Posner, M.V. (1961). "International trade and technical change", Oxford Economic Paper, New Series 13(3), 324-41.

Prebisch, R. (1950). The economic development of Latin America and its principal problems. *Economic Bulletin for Latin America* 7, 1-12.

Prebisch, R. (1950). *"The Economic Development of Latin America and its Principal problems."* United Nations, New York.

Samen, S. (2010). *Export development, diversification, and competitiveness: How some developing countries got it right.* Growth and Crisis Unit World Bank Institute. Available: <http://www.blogs.worldbank.org>.

Singer, H. W. (1950). *The Distribution of Trade between Investing and Borrowing Countries.* *American Economic Review*. Vol 40 pp 531-548

Vernon, R. (1966). *International Investment and International trade in the product cycle"* *Quarterly Journal of Economics*, vol 80 pp 190-20

INTERACTION BETWEEN SOCIALLY RESPONSIBLE INVESTMENT (SRI) SECTOR AND SELECTED MACROECONOMIC VARIABLES IN SOUTH AFRICA

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ABSTRACT

The South African Socially Responsible Investment (SRI) Index was launched in 2004 in order to encourage JSE listed companies to comply with issues of environmental, economic and social sustainability. This study analysed the effect of private consumption, employment growth rate, government expenditure, gross domestic investment, import and exports on the SRI Index. Using a co-integration test, error correction model and Granger causality test, the study found a joint long run effect of these macroeconomic variables on the SRI Index. It was only private consumption which had a significant short-run effect on the SRI Index. In general, there was a two way causal relationship between the SRI Index and the selected macroeconomic variables. This study concluded that Sustainable SRIs play an important role in the development of the South African economy.

INTRODUCTION

The world is currently facing various socioeconomic challenges related to climate change, global warming, epidemic diseases (such as HIV/AIDS), poverty, food insecurity and unbalanced societies. In assisting the society to address these challenges, companies and investors are channeling their capital towards investment strategies that promote environmental, social and corporate governance (ESG) issues (Socially Responsible Investment Forum, 2006). Changes in investment strategies have contributed to the recent growth in demand for Socially Responsible Investment (SRI). Although, the definition of SRI has dominated academic debate for years there is still no consensus regarding its definition. SRI is generally defined as a practice of directing investment funds in ways that combine investors' financial objectives with their commitment to social concerns such as social sustainability, economic development and a healthy environment (Haigh & Hazelton, 2004). In broad sense, socially responsible investors integrate the ethical principles and ESG considerations into their investment decision making (Viviers, 2007).

The global SRI sector has grown considerably in recent years. At the end of 2012, the total worth of global SRI was estimated to be US\$13.6 trillion and it represented 21.8 percent of the total global assets managed professionally (Global Sustainable Investment Alliance (GSIA), 2013). SRI in Africa was estimated to be approximately US\$ 228.7 billion, at the end of 2012, with South Africa representing 95 percent of the SRI market in Sub-Saharan Africa (GSIA, 2013). This dominance of South Africa in the Sub-Saharan SRI sector was enhanced by the increased availability of SRI investment opportunities because of the introduction of the JSE SRI Index in 2004. This SRI Index was the first to be launched by a stock exchange in emerging markets, and has been a driver for increased attention to responsible investment in South Africa (JSE, 2012). JSE launched the SRI Index (JSE SRI Index) in May 2004 in order to respond to the growing interest in responsible investment around the world (JSE, 2011b). The development of a sustainable index, such as the JSE SRI Index, plays an important role in encouraging companies to disclose their ESG (Ethical Investment Research Service, 2009). The availability of the SRI Index highlights the role of the South African stock market in ensuring continuous sustainability of the SRI sector. In principle, a good development of the stock market is expected to encourage

economic growth by improving domestic savings and increasing the quantity and the quality of investment (Yartey, 2008).

Although the relationship between the South African stock market index and various macroeconomic variables has been investigated, there has been no specific study focusing on the growing area of SRI sector. Studies conducted on the SRI in South Africa focused mostly on the growth of the SRI sector, the challenges facing this sector and the performances of SRI sector relatively to their benchmark (Williams, 2007; Viviers, 2007; Viviers et al., 2008; Herringer et al., 2009; Viviers et al., 2009; Gladyssek & Chipeta, 2012;). It has been identified that South African macro-economic conditions have an impact on the demand for SRIs (Viviers, 2007; Viviers et al., 2008) but this impact has not been measured. The current study therefore measures the relationship between the SRI sector and the South African economy. The objective of this paper is to determine whether there are interactions between the JSE SRI Index and a set of macroeconomic variables the years 2004-2012. To achieve this objective, this paper uses the Engle-Grange cointegration test and Error Correction Model (ECM) and Granger causality test. The rest of the paper is organized as follows. Section 2 presents a brief review of the empirical literature. Section 3 provides the overview of the JSE SRI Index. Section 4 describes data and the methodology. Section 4 presents the results and discusses the findings. Section 5 provides conclusions and recommendations.

Overview of South Africa's SRI Sector

The JSE SRI Index was launched to serve four major objectives (JSE, 2011a). Firstly, the SRI Index seeks to identify listed companies that integrate the three pillars of sustainability into their business activities. These three pillars involve the sustainability of environment, society and economy. Secondly, the JSE SRI Index provides a tool for a comprehensive and complete assessment of company policies and practices against globally and locally related corporate responsibility standards. JSE SRI Index also serves as channel through which socially responsible companies, registered in the JSE, are identified. Finally, SRI index plays an important role of contributing to the development of responsible business practice in South Africa and beyond (JSE, 2011a).

To qualify for the JSE SRI Index, companies must demonstrate a high standard of reporting and performance in environmental, social and corporate governance areas (JSE, 2008). Companies are assessed by a UK-based research organization known as Ethical Investment Research Service (EIRIS). EIRIS uses profile and survey responses from companies taking part in the review as well as publicly available company information such as annual reports, sustainability reports and websites (JSE, 2008). In the evaluation, EIRIS considers global themes and other themes that are very specific to the South African context such as HIV/AIDS and BEE. However, companies with no operations in South Africa are exempt from assessments related to these specific criteria. Companies from the JSE All Share Index may take part in the selection of the SRI Index voluntarily through submitting data in terms of a questionnaire. The JSE SRI Index selection process does not exclude any specific sectors but companies that are in Top40 Index and Mid Cap are automatically assessed (JSE, 2011a).

The JSE SRI Index is reviewed annually, in November, based on information acquired during the period preceding the review. In addition to the annual review, the JSE SRI Index is reviewed quarterly to determine whether the constituent companies still conform to all the requirements (JSE, 2011b). If the quarterly report shows that a company no longer meets the criteria, such company is removed from the SRI Index. Additionally, a company is removed from the JSE SRI Index, if such company ceases to be a constituent of the JSE All Share Index. The process of adding and removing companies from the SRI Index maintains the stability in the selecting the constituents of the Index and ensures that the SRI Index continues to be representative of the stock market (JSE, 2011b).

Methodology

DATA

The aim of the study reported here was to determine the interaction between the SRI sector and selected macroeconomic variables. Since most of the variables are not available on monthly basis, quarterly observations from 2004 to 2012 are used. Average prices of the JSE SRI Index are obtained from McGregor BFA library

while other variables are accessed from the South African Reserve Bank (SARB) and Statistics South Africa (STATS SA). All variables are adjusted for inflation and transformed into logarithmic values.

MODEL SPECIFICATION

This study uses the Engle-Granger (EG) cointegration approach and Error Correction Model (ECM) to establish the long-run and short-run relationships between the SRI sector and a set of selected macroeconomic variables. Additionally, Granger-Causality test is used to determine the causality between these variables. Before conducting any cointegration test, it is important to test for unit root and the order of integration of the variables. The level of integration explains whether data are stationary or not and this level of integration is presented as follows:

$X_t \approx I(d)$, where d stands for the order of integration (Charemza & and Deadman, 1997).

This order of integration refers to the number of unit roots in the series, or the number of differencing operations it takes to make a variable stationary. When $d = 0$, a series (X_t) is integrated of order zero ($I[0]$) and is stationary. However, when $d \geq 1$, a series is integrated of order 1 ($I[1]$), or higher, and is non-stationary. Following Brooks (2002), the following Augmented Dicky-Fuller (ADF) test is used to test for unit root:

$$\Delta x_t = \alpha + \beta T + \lambda x_{t-1} + \sum_{i=1}^n \alpha_i \Delta x_{t-i} + e_t \quad (1)$$

Where: x_t = the logarithm of the variable in period t ;
 Δ = the first difference operator: thus, $\Delta x_t = x_t - x_{t-1}$;
 α , β , λ , and α_i are the coefficients;
 T = time trend and e_t is a white noise error term.

The hypothesis tests for unit root (ADF) are:

The null hypothesis (H_0): $\lambda = 1$ then x_t has a unit root, $I(1)$;
 Alternative hypothesis (H_1): $\lambda < 1$ then x_t is stationary, $I(0)$.

Non-stationary variables that move together over time are said to be cointegrated if a linear combination of them can be stationary (Brook, 2002). This implies that non-stationary series may be bound by some relationship in the long-run. The cointegrating relationship is, therefore, considered as a long-run or equilibrium phenomenon of variables that might deviate from a short-run relationship but return their association in the long run (Brooks, 2008). The Engle-Granger cointegration test is used to identify whether there is a long-run relationship between the JSE SRI Index and macroeconomic variables. If our variables are $I(1)$, their relationship is given by:

$$LRSRI_t = \beta_1 + \beta_2 LRC_t + \beta_3 LRG_t + \beta_4 LRI_t + \beta_5 LRX_t + \beta_6 LRZ_t + \beta_7 LEM_t + u_t \quad (2)$$

Where: $LRSRI_t$ = the natural logarithm of the real value of the SRI Index,
 LRC_t = the natural logarithm of real private consumption expenditure,
 LRG_t = the natural logarithm of real government expenditures,
 LRI_t = the natural logarithm of real gross domestic investments,
 LRX_t = the natural logarithm of real export of goods and non-factor services,
 LRZ_t = the natural logarithm of the import of goods and non-factor services,
 LEM_t = the natural logarithm of real rate of employment and u_t = the error term.

The ADF test is used to assess whether the error term, u_t , is stationary but the critical values tabulated by Engle and Granger (1987) are considered. If the error term is stationary then we will conclude that variables are cointegrated and we will proceed with the ECM as follows:

$$\Delta LRSI_t = \alpha_1 + \alpha_2 \Delta LRC_t + \alpha_3 \Delta LRG_t + \alpha_4 \Delta LRI_t + \alpha_5 \Delta LRX_t + \alpha_6 \Delta LRZ_t + \alpha_7 \Delta LEM_t + \alpha_7 u_{t-1} + e_t \quad (3)$$

Where: Δ is the first difference operator; e_t is a random error term, and u_{t-1} is the one-period lagged value of the error term from Equation (2).

Equation (3) suggests that changes in JSE SRI Index depend on changes in a set of macroeconomic variables and the equilibrium error term, α_7 . The absolute value of α_7 shows the speed of adjustment to the equilibrium. If α_7 is zero, it means that the SRI Index adjusts to changes in macroeconomic variables in the same time period. If α_7 is different from zero, the model is not at equilibrium and SRI Index will increase or decrease to correct the equilibrium error. If variables are cointegrated, such cointegrated variables are expected to have a causal link at least of one direction (Known & Shin, 1999). Thus, Granger causality test will be used to establish the causal relationship between the cointegrating variables.

Results and discussion

UNIT ROOT TESTS

ADF results are in Table 1 (number of lags were selected based on Schwarz criterion). The test statistics and their P-values at the level are columns 2 and 3, while columns 4 and 5 report the test statistics and their P-values at the first difference. P-values, in column 3, are greater than 5%; meaning that, at the level, all variables have a unit root at the 5% level of significance. However, the first differences of all variables are stationary at the 5% level of significance (P-values < 5%, in column 5). The LM-statistics for the KPSS test (not reported here) confirmed that variables are stationary at the first difference. This means that variables are I(1) and might be cointegrated. It is therefore important to continue with a cointegration test.

Table 1: ADF unit root test

Variables	Level		First difference	
	Test Statistics	p-values	Test Statistics	p-values
LSRI	-2.479112	0.3357	-3.848765	0.0059
LRC	-3.385673	0.0697	-3.539777	0.0009
LEM	-2.908066	0.1726	-6.566008	0.0000
LRG	-1.873746	0.6466	5.571602	0.0001
LRI	-1.552137	0.7907	-3.225656	0.0273
LRX	-2.283028	0.4313	-4.414915	0.0014
LRZ	-2.329739	0.4076	-5.241282	0.0001

COINTEGRATION AND ECM

Since it is established that all the variables are I(1), the next step is to test for the cointegrating relationship between the set of selected macroeconomic variables and the JSE SRI Index. Equation 2 was estimated to test whether its residuals (u_t) are stationary. The absolute value of the estimated test statistic u_t (4.85) is greater than the absolute value of the 5% EG critical value (4.76). This indicates that u_t is stationary at the 5% level of significance. It is therefore concluded that the JSE SRI Index is cointegrated with independent variables. The next step is to use the ECM (Equation 3) to estimate the adjustment to the equilibrium. In order to avoid basic econometric problems, basic diagnostic tests were conducted on the ECM (Abdalla & Murinde, 1997). Breusch-Godfrey serial correlation LM test and Breusch-Pagan-Godfrey Heteroskedasticity test revealed that residuals from Equation 3 are homoscedasticity and have no serial autocorrelation.

The ECM results, in Table 2, show that the coefficient of error correction is negative and statistically significant at the 5% level of significance. This indicates that there is a long run relationship between SRI and macroeconomic variables considered in this study. The value of the EC coefficient implies that about 54% of disequilibrium is corrected in each quarter, meaning that the equilibrium is restored within 2 quarters. These results are similar to previous studies (Chung & Shin, 1999; Garcia & Liu, 1999; Liu & Hsu, 2006; Yang & Yi, 2008; Yartey, 2008; Kemboi & Tarus, 2012) which found a long run relationship between the stock market development macroeconomic variables such GDP per capita and income level. The variable LRC is positive and

statistically significant at the 1% level of significance, indicating that the short-run changes in private consumption expenditures have a significant positive effect on the SRI Index. Other variables are not statically significant, even at 10% level of significance. This indicates that short-run changes in employment rate, the government expenditures, gross domestic investments, the exports and imports have no short-run effect on the SRI Index. These results support the previous findings that the profit for social responsible investors is mostly realised in the long-run.

Table 2: ECM results

Dependent Variable: Δ LSRI				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
Δ LEM	-3.955153	2.659978	-1.486912	0.1491
Δ LRZ	-0.288536	0.654576	-0.440799	0.6630
Δ LRX	1.046894	0.670169	1.562135	0.1303
Δ LRI	-0.142683	0.347556	-0.410533	0.6848
Δ LRG	0.120490	0.637327	0.189055	0.8515
Δ LRC	8.567217	2.403753	3.564100	0.0014
UT(-1)	-0.536650	0.196553	-2.730304	0.0112
C	-43.16574	11.13276	-3.877363	0.0006
R-squared	0.918240	F-statistic		36.50044
Adjusted R-squared	0.893083	Prob(F-statistic)		0.000000

Table 3 reports results from the pairwise Granger causality test, with 2 lags (Estimated by EViews 7). In overall, there appear to be a unidirectional causality from the SRI Index to the most of macroeconomic variables. A bi-directional causality between the SRI Index and two independent variables (gross domestic investment and government expenditure) and a one-way causality from the rate of unemployment to SRI Index are observed. They appear to be no causality between SRI Index and private consumption expenditures. In general, Granger causality test suggest that changes in SRI Index lags lead to changes in the lags of the selected macroeconomic variables. This is in line with the findings of Yang & Yi (2008) that the financial development *control-causes* economic growth.

Table 3: Pairwise Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
LEM does not Granger Cause LSRI	34	3.01711	0.0645
LSRI does not Granger Cause LEM		1.34099	0.2773
LRC does not Granger Cause LSRI	34	1.72156	0.1966
LSRI does not Granger Cause LRC		0.50972	0.6059
LRG does not Granger Cause LSRI	34	3.70821	0.0368
LSRI does not Granger Cause LRG		3.20014	0.0555
LRI does not Granger Cause LSRI	34	3.86478	0.0325
LSRI does not Granger Cause LRI		10.3105	0.0004
LRX does not Granger Cause LSRI	34	0.56876	0.5724
LSRI does not Granger Cause LRX		10.9523	0.0003
LRZ does not Granger Cause LSRI	34	0.94149	0.4016
LSRI does not Granger Cause LRZ		7.11063	0.0031

CONCLUSION

The JSE SRI Index was introduced in order to encourage companies, registered in the JSE, to comply with issues of environmental, economic and social sustainability. Thus, the SRI Index is considered as a benchmark for the SRI sector in South Africa. This study used the Engle-Grange cointegration test, Error Correction Model (ECM) and Granger causality test to investigate the relationship between the SRI sector and a set of selected macroeconomic variables. Previous studies that linked the stock market development to economic growth produced mixed results, but in overall they favour a positive relationship between stock markets and economic variables. This study found a significant long run relationship between the SRI sector and a set of macroeconomic variables (private consumption, employment growth rate, government expenditure, gross domestic investment, exports and imports). With regards to the short run relationship, only one variable (private consumption expenditures) was found to have a significant effect on the SRI Index. Other macroeconomic variables (employment rate, the government expenditures, gross domestic investments, the export and import) had no significant short run effect on the SRI Index. Findings of this study suggest that the development of SRI sector may be linked to the long run economic growth. This is in line with the previous findings that SRIs generate long-term profits to investors while promoting social, economic and environmental needs of the society as whole (Herringer et al. 2009). In general, Granger causality test showed that there is a one-way causal link from the SRI Index to the majority of the selected macroeconomic variables. Additionally, a bi-directional Granger causality between the SRI Index and 2 variables (gross domestic investments and government expenditures), and a one way causal relationship from the rate of unemployment to the SRI Index were found. These results suggest that changes in SRI Index lags lead to changes in the lags of the selected macroeconomic variables.

As a concluding remark, it is important to note that this study faced a challenge of limited number of the observations, and is exposed to the limitations associated the Engle and Granger cointegration test. For future research, the VECM and super-exogeneity methodology can be used to examine the relationship between social responsible sector and variables of macroeconomic stability within a larger sample period.

REFERENCES

- Abdalla, I. & Murinde, V. (1997). Exchange rate and stock price interactions in emerging financial markets: evidence on India, Korea, Pakistan and the Philippines. *Applied Financial Economics*, 7 (1), 25-35.
- Balabanis, G., Phillips, H., & Lyall, J. (1998). Corporate social responsibility and economic performance in the top British companies: are they linked? *European Business Review*, 98 (1), 25-44.
- Brook, C. (2002). *Introductory Econometrics for Finance. 2nd ed.* (2nd ed.). UK: Cambridge University Press.
- Brook, C. (2008). *Introductory to Econometrics for Finance*. Cape Town: Cambridge University Press.
- Charemza, W. & Deadman, D. F. (1997). *Econometrics Practice: General to Specific Modelling, Cointegration and Vector Autoregression*. (2nd Ed. ed.). UK: Edward Elgar.
- Chen, N., Roll, R., & Ross, S. (1986). *Economic forces and the stock markets*, *Journal of Business*, 59, 383-403.
- Chung, S. & Shin, T. (1999). Cointegration and causality between macroeconomic variables and stock market returns. *Global Finance Journal*, 10 (1), 71-81.
- Engle, R.F. & Granger, C.W.J. (1987) Co-Integration and Error Correction: Representation, Estimation, and Testing. *Econometrica*, 55(2), 251-276.
- Ethical Investment Research Service. (2009). *Emerging Markets Investor Survey Report: An analysis of responsible investment in emerging markets*. Retrieved March 4, 2013, from EIRIS: <http://www.eiris.org>.

- Garcia, V. & Liu, L. (1999). Macroeconomic determinants of stock market development. *Journal of Applied Economics*, 2 (1), 29-59.
- Gladyssek, O. & Chipeta, C. (2012). The Impact of Socially Responsible Investment Index Constituent Announcements on Firm Price: Evidence from the JSE. *South African Journal of Economic and Management Sciences*, 15 (4), 429-439.
- Global Sustainable Investment Alliance (GSIA). (2013). *The 2012 SRI Trends Report*. Retrieved February 27, 2013, from The Forum for Sustainable and Responsible Investment – Formerly the Social Investment Forum (SIF): <http://ussif.org>.
- Gupta, R. & Modise, M. (2011). Macroeconomic Variables and South African Stock Return Predictability. *University of Pretoria Department of Economics Working Paper Series*.
- Haigh, M. & Hazelton, J. (2004). Financial Market: A Tool for Social Responsibility. *Journal of Business Ethics*, 52, 59-71.
- Herringer, A., Firer, C. & Viviers, S. 2009. Key Challenges Facing the Social Responsible Investment (SRI) Sector in South Africa. *Investment Analysis Journal*, 7:11-26.
- Johannesburg Stock Exchange (JSE). (2011a). *Background and Selection Criteria 2011*. Retrieved February 24, 2013, from Johannesburg Stock Exchange SRI Index: http://www.jse.co.za/Libraries/SRI_Criteria_Documents/01_Background_and_Criteria_2011.sflb.ashx.
- JSE. (2008). *JSE honours good corporate citizens*. Retrieved February 18, 2013, from JSE SRI Index: www.jse.co.za.
- JSE. (2011b). *Social Responsible Investment Ground Rules*. Retrieved February 18, 2013, from JSE SRI Index: www.jse.co.za.
- Kemboi, J., & Tarus, D. (2012). Macroeconomic Determinants of Stock Market Development in Emerging Markets: Evidence from Kenya. *Research Journal of Finance and Accounting*, 3 (5), 57-68.
- Kwon, C., & Shin, T. (1999). Cointegration and causality between macroeconomic variables and stock market returns. *Global Finance Journal*, 10 (1), 71-81.
- Liu, W.-C., & Hsu, C.-M. (2006). The role of financial development in economic growth: The experiences of Taiwan, Korea, and Japan. *Journal of Asian Economics*, 17 (2006) , 667–690.
- Socially Responsible Investment Forum. (2006). *Principles for Responsible Investment*. Retrieved September 05, 2012, from <http://www.unpri.org/>. [Accessed on September 5, 2012].: <http://www.unpri.org>
- South African Reserve Bank. (2012). Statistical information: Economic and Financial Data for South Africa. Retrieved February 02, 2013, from <http://www.reservebank.co.za>
- STATS SA. (2002). Key Economic Indicators. Retrieved January 12, 2013, from <http://www.statssa.gov.za/keyindicators/cpi.asp>

Viviers, S., Bosch, J., Smit, E., & Buijs, A. (2009). Responsible investing in South Africa. *Investment Analysts Journal*, 69, 3-16.

Viviers, S. (2007). *Critical assessment of socially responsible investing in South Africa. Doctoral Thesis*. Port Elizabeth: Nelson Mandela Metropolitan University.

Viviers, S., Bosch, J., Evd M., Smit, E., & Buijs, A. (2008). The risk-adjusted performance of responsible investment funds in South Africa. *Investment Analysts Journal*, 68, 39-56.

Williams, G. (2007). Some Determinants of the Socially Responsible Investment Decision: A Cross-Country Study. *The Journal of Behavioral Finance*, 8 (1), 43-57.

Yang, Y., & Yi, M. (2008). Does financial development cause economic growth? Implication for policy in Korea. *Journal of Policy Modeling*, 30, 827-840.

Yartey, C. (2008, February). The Determinants of Stock Market Development in Emerging Economies: Is South Africa Different? *IMF Working Paper*.

THE POTENCY OF MANAGERIAL ACCOUNTING ON MUNICIPAL CAPITAL PROJECT DELIVERY IN SOUTH AFRICA: EX-ANTE DETAIL EXECUTION AS PREVENTION OF FUTURE DEFICIENCIES

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ABSTRACT

The purpose of this paper is to assess the potency of managerial accounting practices and techniques in strategising municipal capital projects delivery. Managerial accounting is employed and appreciated by the private sector to provide timely financial information for managers in decision making processes in particular the production based businesses. In South Africa the ruling party is promoting a notion of a developmental state which requires state organs to be a driving force behind development processes. Central to a developmental state is the provision of capital infrastructure, which will complement socio-economic progress. This conceptual paper argues that, managerial accounting technics may boost efficiency in delivering capital projects in the South African municipalities. In addressing its purpose a literature review is undertaken to analyse the potency of managerial accounting in promoting sustainable capital project delivery strategies through organizational practices. The paper then concludes that paying detailed financial and managerial attention to each activity of a project may save the project objective from its possible deficiencies and failures.

INTRODUCTION

Accounting as a specialised information system, performs a service function, in providing relevant information about an institution to a wide range variety of interested parties. In the modern internationally oriented public sector management, managers increasingly require more accounting information to undertake calculated and enlightened decisions, in the management of public programmes (Nemand, Mayer, Botes and Vuuren, 2006, p. 4). Accounting has two significant forms; on the one hand it is financial accounting which provides information to interested parties external to the institution in a form of general purpose reporting, following the principle of the Generally Accepted Accounting Practices (GAAP). In the public sector context, communities and their formation serve as interested parties in this regard. While, on the other hand managerial accounting which at times is referred to as cost management accounting, focuses on the purpose of providing information to managers within an institution. This information assists in shaping institutional practices such as planning and direction setting, resource allocation and monitoring and controlling (Cuganesan, Dunford and Palmer, 2012, p. 246). In essence, managerial accounting seeks to meet institutional managers' decision making information needs. Therefore managerial accounting can thus be institutionalized (Burns and Scapens, 2000).

As indicated, this paper seeks to assess the potency of managerial accounting practices and techniques, an assessment is considered specifically in strategising the delivery of municipal capital infrastructural projects. In order to address the foregoing purpose, the paper match sentences in its argument based on literature, to evaluate the potential role of managerial accounting in the institutional practices through which strategy is developed (Cuganesan, Dunford and Palmer, 2012, p. 46), for establishing sustainable municipal capital project delivery strategies in South Africa. A provision of literature on managerial accounting and project (management) is undertaken. A further focus is on the role of managerial accounting in institutional practices for strategy development. Later a reflection on capital infrastructure project delivery in the South African municipalities is

provided. The potential role of managerial accounting concludes the overall discussion, with the notion that ex-ante execution detail execution is preventive of potential deficiencies.

CONTEXTUAL BACKGROUND ON MANAGERIAL ACCOUNTING, STRATEGIC MANAGEMENT AND PROJECT MANAGEMENT

Management accounting involves consideration of the ways in which accounting information may be accumulated, synthesised, analysed and presented in relation to specific problems, decisions and day to day tasks of institutions (Belkaoui, 2002, p. 1). It is worth noting that management accounting is a private sector based activity that place emphasis on economic outcomes; public institutions have adopted this approach as its relevance is more justifiable in the modern practices which have become more business-like (Economic Commission for Africa, 2003, p. 6). This part of the paper provides a contextual base analysis of managerial accounting, strategic management and project management, to provide background, on interrelation and supportive character of the concepts, (managerial accounting and project management) in delivery strategy development.

Management accounting

Practically managerial accounting practices is seen as a variety of methods especially considered for private institutions, to support the institution's infrastructure and strategic management processes. Management accounting practice include budgeting, performance evaluation, information for decision making, and strategic analyses, as methods used amongst others (Alleyne and Weekes-Marshall, 2011, p. 50; and Debarshi, 2011, p. 2). Belkaoui (2002, p. 1) Argues that management accounting deals with the provision of information that allows an efficient management for the delivery of products, services, projects or even processes. Belkaoui further provides that managerial accounting is a more elaborate version of cost accounting, undertaking a multidimensional focus in order to better serve the various and complex need faced by managers in institutions. Therefore managerial accounting is thus concentrating not only in accounting but also on organisational, behavioural, decisional, strategic and other foundations and dimensions (Benerjee, 2005, p. 2). The conception of formalising institutional practices that shapes strategic behaviours, in institutions is portrayed to legitimise good institutional governance. Managerial accounting however supports institutional practices, to assist in accomplishing substantive institutional change and action, in proactive sentiment (Modell, 2004, p. 40). Jones and Dugdale (2001) in Cooper and Hopper (2007, p. 209) offers a useful working definition of managerial accounting he argues that, managerial accounting is a system of governance that operates, at a macro level of national and international society, polity and economy, at the micro level of an institution, and permeates the managerial level where accounting constitutes both rules and resources for action. Managerial accounting is thus, encompasses an economic dimension, which focus on calculation of the production, distribution and consumption of value; apolitical dimension which deals with regulation and accountability and an ideological dimension focusing on forms of accounting reflexivity. Furthermore Cooper and Hopper (2007) argue that managerial accounting is associated with struggles for control rooted in organizational processes and their socio-economic context; the macro and micro are reciprocally related. Studying accounting in practice is motivated by the notion of examining, whether theories of accounting and control, notably structural functionalist approaches such as contingency theory and economic approaches such as agency and transaction cost theories, adequately explained budgeting and performance evaluation in large complex institutions in both public and private domain (Rahaman & Lawrence, 2001, p. 3).

Strategic Management

Strategic management is defined as the process whereby all the institutional functions and resources are integrated and coordinated to implement formulated strategies which are aligned with the environment, in order to achieve the long term goal of the institution and therefore gain a competitive advantage through adding value for the stakeholders (Ehlers & Lazenby, 2012, p. 2). Strategic management consists of the analysis, decisions, and actions, an institution performs in order to create and sustain competitive advantage (Prasad, 2009, p. 4 &

Drejer, 2002, p. 9). From this understanding a two-fold view arises, firstly is that strategic management of institutions entails three ongoing processes, namely analysis, decisions, and actions. Firstly strategic management is seen as concerned with the analysis of strategic goals particularly the vision, mission and strategic objectives along with the analysis of the internal and external environment of the institution. While on the other hand is the essence that strategic management is the study of why some institutions or governments perform better than others (Dess, Lumpkin and Taylor, 2005). Thus, managers need to determine how an institution is to perform optimally and compete to outperform problems and obtain advantages, which are sustainable over a lengthy period of time (Hill and Jones, 2002, p. 14).

Project Management

Project management does not only involve, crystallisation of a unique task into a number of small task, scheduled cross a specified time span, and allocated to groups or individuals, hoping for deliverability desired outcomes. Adopting this approach could be disastrous for projects that could otherwise have been successful, simply because project management was not properly understood (Oostuizen and Venter, 2011, p. 3). In order to provide a meaningful understanding of project management, a point of departure should be to define a project. There is a continual agreement that a project is a planned, temporary endeavour that is unique, which is to be completed within a defined and limited time schedule, using limited fiscal resources (Steyn, 2009, p. 3; Gray & Larnon, 2005, p. 4 & Project Management Institute, 2008, p. 6). While in this paper, projects are considered in the dimension of capital projects, which at a moderate definition, refers to the infrastructural projects which are include in municipal capital budgeting and consist of long-term benefit to the municipality. In this regard a project is a complex, non-routine, one time temporary endeavour undertaken to create a unique product or service. It includes the application of knowledge, skills, tools and techniques in order to meet or exceed stakeholder needs and expectations within a definite starting and ending period. It is limited by time, budget, resources and performance specifications designed to meet target beneficiary's needs (Oostuizen and Venter, 2011). Project management therefore is the application of knowledge, skills, tools and techniques to meet project activities to meet requirements of a unique endeavour. This include working processes that initiate, plan, execute, control and closure. In the process of project management, trade-offs such as where one factor is considered over another, must be made in respect of cope, quality, cost and schedule. When these trade-offs are successful, the project result meet the agreed requirements to meet the customer needs (Project Management Institute, 2008, p. 6).

THE ROLE OF MANAGEMENT ACCOUNTING IN INSTITUTIONAL PRACTICES

In the private sector environment companies compete on price, quality, speed of delivery, and customer service. However in the public sector set-up, institutions compete against the never ending desires of the societies they serve. Furthermore governments are run by political elites who require outperforming the raging challenges of governance, to sustain power. Managers need measures and performance indicators to perform institutional purposes (Yeshmin and Hossan, 2011, p. 148). Managerial accounting as a traditional information specialist, must provide such in information timely, otherwise management accounting may be considered comparatively irrelevant. However with the changes in public sector and business environment, managerial accounting has to be less concerned with a number crunching and generating the traditional, antiquated accounting measures and focus more at how they can add value and became more integrated into institutions. Thus managerial accounting should become a valued institutional practice, which acts as a greater strategic and managerial decision making influencer (Russell, Siegel and Kulesza, 1999). This section focuses on the role of management accounting on the institutional practices, within which emanates strategy, namely (i) planning and direction setting, (ii) resource allocation and (iii) evaluation and controlling.

Planning and direction setting

Financial information plays a greater role in strategy development, as expected to establish a competitive edge with scarce capital. Since, public sector and economic reforms, spread across the globe, the planning and fiscal resource management functions have had disproportionate increase in their involvement in strategy and direction

setting. Planning and direction setting functions seem a natural outcome of reforms aimed at giving institutions control of their destiny (Anderson and Lanen, 1999). Since strategy is to bring change in institutions, setting direction for that change is fundamental to decision makers. Direction setting is thus greatly associated with strategy development. Planning and direction setting is therefore a process of seeking, template analysis for moving the institution to a desired future destination. This means that planning and direction setting take a form, out of the vision, mission and objectives of the institution, to create valued acts towards destiny (Ehlers and Lazenby, 2012, p. 6). In an institution, without direction even short-term planning can become a management black hole, capable of absorbing an infinite amount of time, resource and energy (Kotter, 1990, p. 39). Direction setting is inductive, leaders gather a broad range of data and look for pattern, relationships and linkages that help explain issues that impacts institutional immediate and future prospects. The direction setting aspect of strategic leadership does not produce plans, it honour the vision and create strategies. Setting direction is never the same as planning or even long-term planning, although people often confuse the two. Planning is a management process, deductive in nature and designed to produce orderly results, not change (Mitzberg, Kotter, Zalezenik and Farkas, 1998, p. 42). The role of management accounting in planning and direction setting, is to analyse and interpret those modified data and extracts the necessary information for making them understandable and useable to the management in the process of its planning, direction setting and controlling. After analysis and interpretation of such financial data, it presents the results with necessary comments to the management, with certain directions for purposive and competitive edge, and with the most probable means to achieve institutional strategic destiny.

Resource distributions

Strategic plan documents the aspiration of the institutions strategists. Project implementation is meant for the creation of infrastructure required to put such a plan into action. In a procedural implementation, one need authority signal to initiate implementation, however nothing really happens until resources are procured and allocated to tasks for the accomplishment of institutional objects (Kazmi, 2008, p. 334). Resource allocation is the process of procurement, commitment and distribution of financial, human, informational and physical resources to strategic tasks for the achievement of institutional objectives. The importance resource allocation can be observed from the fact that strategic management is sometimes referred to as a resource allocation process. Resource allocation is both a one-time and continuous process (Alkhafaji, 2003, p. 201). When a new activity is implemented in an institution it requires resources being allocated prior implementation (David, 2007, p. 269). As an on-going concern there is a requirement of a continual infusion of resources. Strategy and implementation is required to take consideration of these components of resource allocation. Resource allocation especially for financial and physical resources could be done through budgeting (Kazmi, 2008, p. 334).

Evaluating and Controlling

Managerial accounting plays a pivotal role in the controlling process of institutions. Managerial accounting in the controlling process, involves framing of budgets, comparison of actual results with budgeted estimates, ascertainment of any deviation of actual results from budgeted estimates by computation of variances and adoption of necessary remedial measures against such deviation. Furthermore managerial accounting ensures control over the performance of different sections of an institution. It uses various techniques such as budgetary control, standard costing and responsibility accounting and to identify the weaker areas of performance activities and suggests appropriate remedial measures to overcome the prevailing problems (Debarshi, 2011, p. 6). It is worth noting that in all the above noted provision of management accounting, can be fitted into municipal capital project delivery, and thus can be effective when institutionalised.

THE NATURE OF CAPITAL PROJET DELIVERY IN SOUTH AFRICAN MUNICIPALITIES

Public sector reform has come into push after, scientific analyses of the infectiveness of government systems to deliver on their objectives. In order to improve management efficiency and effectiveness, most countries use the new management tools and informative accounting systems, which were mainly developed for business organisation (Economic Commission for Africa, 2003, p. 5). Thus these new managerial tools are seen to be

relatively new in the public sector, necessary because the public sector is specifically designed to deliver non-profit base objectives as opposed to business institutions which pursue a profit maximisation goal at a highly competitive environment (Therkildsen, 2001, p. 2). Government however, have objects including, accountability, working better and costing less, improving fiscal policies, delivering more with less, reducing and clearing debt, disclosing financial position of the hole government (Artley, 2001, p. 3). These functions of government are unlimited, and have a broader concern on strategic delivery of the general purpose of satisfactory service delivery to the people. It is for this reason that recent and scientifically proven, tools and informative system should be integral part of government institutional practices (Ouda, 2003, p. 3). South African municipalities are constitutionally mandated to provide socio-economic facilitation to its demarcation. As such the constitution, stress that the municipalities should provide capital infrastructure that includes, water systems, roads, rain water drainage, waste water management and provision of safe environment for its people.

The potential role of managerial accounting in municipal capital project in South Africa

Recently with the global reforms in both public and private sector, public sector methods are closely related to managerial methods and tools, especially performance measures and the focus on management control. The theory of new public management is founded on several theoretical microeconomic frameworks such as public choice theory, principal agent theory, transaction cost theory, technical rational theory and institutional theory (Gomes, Carnegie, Napier, Parker, & West, 2011). These profit maximization traits and rational choice are integrated with neoclassic economics and plays a pivotal role in the development of managerial accounting. However not only the origin of new public management and managerial accounting display similarities, management accounting techniques and innovation such as costing, budgeting and performance measurement tools are vital instrument in new public management reform making, especially within the public sector (Pettersen, 2004; Ryan, Scapens & Theobald, 2002; Lapsley & Wright 2004). Managerial accounting in the south African municipalities can be used, in line with the quest to attain the objective of creating value for money driven by being economic, efficient and effective (Hong, 1999).

CONCLUSION

Managerial accounting represents one form of institutionalized practice within institutions. managerial accounting practices can thus be institutionalised, because it embodies programmed actions, which generated common responses to situations and are drawn upon by managers of an institution regularly to help the institution gain support from society and hence legitimacy. Managerial accounting represents a ceremonial means for symbolically demonstrating institutional commitment to a rational cause of action. Experience beautifies that accounting practices, for management and reporting, fiscal use, can contribute to the realisation a public institutions which take stewardship in service delivery and national prosperity. Implementing management accounting techniques, based on an economic rational, in the social context of public sector institutions, where social results are generated based on the fiscal abilities of the institution. This paper draws conclusion that if South African municipalities, could institutionalise managerial accounting, could realise less inefficiencies, in particular those which are caused by lack of detail planning. The use of managerial accounting can thus promote accountability, in the progress of project implementation than on which is provided by financial accounting which is basically on post-ex factor reporting.

REFERENCES

- Alkhafafi, A.T., 2003. *Strategic Management: formulation, implementation and control in a dynamic environment*. Haworth Press Inc. United States of America.
- Anderson, S.W., and Lanen, W.N., 1999. Economic Transition Strategy and the Evolution of Management Accounting Practices: the case of India. *Accounting, Organisation and Society*, 379-412.
- Artley, W., 2001. Establishing Accountability for Performance. *The performance Based Management Handbook*. Performance Based Management Group, USA.

- Belkaoui, A.R., 2002. *Behavioral Management Accounting*. Quorum Books. Westernport, USA.
- Benerjee, B., 2005. *Financial Policy and Management Accounting*. 7th ed. Prentice-Hall, India.
- Burns, J., and Scapens, R.W., 2000. Conceptualizing management accounting change: an institutional framework, *Management Accounting Research*, 11, 3-25.
- Cooper DJ and Hopper T, 2007. *Handbook of Management Accounting Research*. Elsevier Ltd.
- Cuganesan, S., Dunford, R., and Palmer, I., 2012. Strategic Management Accounting and Strategy Practices with a Public Sector Agency. *Management Accounting Research*, 23, 245-260.
- David, F.R., 2007. *Strategic Management: Concepts and Cases*. Pearson Educatio, New Jezy.
- Debarshi, B., 2011. *Management Accounting*. Dorling Kindersley, Pvt Ltd. India.
- Dess, G.G., Lumpkin G.T, and Taylor M.L, 2005. *Strategic Management*. 2nd ed. New York: McGraw-Hill Irwin.
- Drejer, A., 2002. *Strategic Management and Core Competencies: Theory and Application*. Greenwood Publishing Group, Inc. United States of America.
- Ehlers, T., & Lazenby, K., 2012. *Strategic Management: Southern African Concepts and Cases*. Van Schaik Publishers, Pretoria, South Africa.
- Economic Commission for Africa (United Nations), 2003. *Public Sector Management Reforms in Africa: Lessons Learned*. Economic Commission for Africa. Addis Ababa, Ethiopia.
- Gray, C., and Larnon, E., 2005. *Project Management: The Managerial Process*. 3rd ed. McGraw Hill, New York, USA.
- Hill, C., and Jonesm, G.R., 2010. *Strategic Management an Integrated Approach*. Cengage Learning, United States of America.
- Hong, H.k., 1991. Management Accounting in the Public Sector. *International Journal of Public Sector Management*, 4 (3), 5-17.
- Jones, T. C. & Dugdale, D. (2001). *The concept of an accounting regime*. Critical Perspectives on Accounting, Vol. 12(1), pp. 35–63. In Cooper and Hopper, 2007. *Handbook of Management Accounting Research*. Elsevier Ltd.
- Lapsley, I., and Wright E, 2004. The diffusion of management accounting innovations in the publicsector: a research agenda. *Management Accounting Research*, 15, 355-374.
- Mintzberg, H., Kotter, J.P., Zaleznik, and Farkas, 1998. *Harvard Business Review on Leadership*. Harvard Business School Publishing, Boston USA.
- Neimand, A.A., Meyer, L., Botes, V.L., & Van Vuuren, S.J., 2006. *Fundamentals of Cost Management Accounting*. 5th ed. Lexisnexis Butterworth, South Africa.
- Ousthuizen & Venter, 2011. *Project Management in Perspective*. Oxford University Press, South Africa.
- Ouda, B., 2003. *Public Sector Budgeting reform: The Main Issue Involved with Special Focus on the Arab World*. United Nations, USA.

Pettersen, I. J., 2004. From bookkeeping to strategic tools?: A discussion of the reforms in the Nordic hospital sector. *Management Accounting Research*, 15 (3), 319-335.

Prasad K., 2009. *Strategic Management: Text and Cases*. PHI Learning Private Limited, New Delhi.
Project Management Institute, 2008. *A Guide to Project Management Body of Knowledge (PMBOK Guide)*. 4th ed. Project Management Institute, New Town.

Kazmi A, 2008. *Strategic Management and Business Policy*. MacGraw-Hill Publishing Company Limited, New Delhi.

Kotter, J.P., 1990. *Force for Change: How Leadership Differs from Management*. Free Press.

Gomes, D., G. D. Carnegie, C. J. Napier, L. D. Parker, and B. West. 2011. Does accounting history matter? *Accounting History*, 16 (4), 389-402.

Rahaman AS and Lawrence S, 2001. *Public Sector Accounting and Financial Management in a Developing Country Organisation Context: A Three Dimensional View*. Paper revised for presentation at the Apira Conference, July 2001.

Russell, K.A., Siegel, G.H., and Kulesza, C.S., 1999, Counting More, Counting Less: Transformations in the Management Accounting Profession, *Strategic Finance*, September, 39-44.

Ryan, B., Scapens, R.W., & Theobald, M., 2002. *Research method and methodology in finance and accounting*: Thomson Learning, London.

Stey H, 2009. *Project Management: A Multi-Disciplinary Approach*. 2nd ed. FPM Publishing, Pretoria, South Africa.

Yeshmin F and Hosan AMD, 2011. Significance of Management Accounting Techniques in Decision-Making: An Empirical Study on Manufacturing Organisations in Bangladesh. *World Journal of Social Sciences*, 1 (1), 148-164.

HR PRACTITIONERS' CONTRIBUTION TO BUSINESS EXCELLENCE: RESULTS SPANNING A QUARTER OF A CENTURY IN NEW ZEALAND

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ABSTRACT

Competent managers and human resource (HR) practitioners play a pivotal role in the success of any business. This includes a variety of business functions that ought to be identified and managed to add value to the bottom-line and harness opportunities. Empirical research was conducted in New Zealand in 2010 to repeat two similar 2000 surveys and an earlier survey conducted in 1994. The longitudinal results up to 2020 identified important areas of the business environment as perceived by HR practitioners. These are awareness of the importance of the effect of change, international competition, and customer satisfaction. It is recommended that HR managers must become dedicated change agents to continue to support management optimally, as this perception was revealed by the survey results over the 25 year period.

INTRODUCTION

The global business environment provides a stage for actual business activities to be conducted nationally and internationally by organisations. Within this context, businesses are compelled to manage their affairs diligently if they wish to seize current and future opportunities to achieve their objectives. Concurrently a variety of factors impact on businesses success, such as the type of business being conducted and the quality and leadership the ability of management. Issues confronting managers are the ability to manage the effects of change, dealing with the demands of customers, the quality of the service/product being delivered, the ability to utilise technology and communicate effectively, and being, able to compete nationally and internationally due to global business competition, to name but a few. Some factors have a greater or lesser impact than others on businesses, depending on where and how business is conducted and the type of business, as well as the staff being employed, in particular the management staff. These issues form the focus of this paper, which aims to identify the state of affairs in New Zealand (NZ) with a particular lens on how human resources (HR) practitioners view these issues over the longitudinal period ranging from 1994 to 2020.

In this paper the various factors impacting on HR practitioners to execute their task in the context of the business environment within which businesses operate are multiple and varied, such as understanding governmental legislative requirements, the impact of international competition, the effect of total quality and customer satisfaction on the organisation and the influence of information and communication technology. These aspects are addressed in the literature review prior to the analysis of the findings of the survey. This is carried out to enable HR practitioners to meet the expectation that they will be able to interpret and manage the influence of the business environment on the organisations they work for.

The structure followed for the paper is to first review the applicable literature and then present the methodology being applied and the findings. Lastly an analysis of the results and conclusions is presented.

LITERATURE REVIEW

The world of today is increasingly subject to continuous change which varies from mild to catastrophic and occurs completely unexpectedly at times (Waddell et al., 2011) notwithstanding the fact that minor changes in all spheres of all aspects of life on earth takes place continuously. The business world also experiences these phenomena on a continuous basis. In this regard a change agent should have a variety of capabilities which include the expertise to understand required change interventions in an organisation to achieve existing or new objectives. As examples of issues that require massive adaptation is the Tsunami in 2012 in Japan, the two Christchurch earthquakes in 2010 and 2011 and the 2008 Global Financial Crisis (GFC), which affects organizations and countries alike (Reserve Bank of NZ, (2012). Global influences continue to impact on the workplaces, organisations, unions and productivity of workforces, which affect the quality of the products and, therefore, the satisfaction of the customers as well (Dessler 2011; Rudman 2010; Nel, du Plessis and San Diego, 2011).

The focus on quality and customer satisfaction in the competitive business environment also warrants particular attention. Innovation in quality and customer satisfaction is an important characteristic in the high performance work that has a significant impact on employee turnover, productivity, market value and profit per employee. The HR function is central within the organisation supply chain, and a range of service can be offered to the relevant users or beneficiaries to improve both the quality of their inputs and outputs in order to assure quality service internally and externally to customers (Losey et al. 2005; Nel et al., 2012).

Information and Communication Technologies (ICT) refers to technologies that provide access to information through telecommunications. It is similar to Information Technology (IT), but focuses primarily on communication technologies. This includes the Internet, wireless networks, cell phones, and other communication mediums. The (ICT) industry includes areas as diverse as wireless infrastructure, health IT, digital content, payments, geospatial, telecommunications and agricultural technology. (<http://www.nzte.govt.nz/access-international-networks/Explore-opportunities-in-growth-industries/growth-industries/Pages/Information-and-communication-technologies.aspx>). Human resource information systems (HRIS) and the use of technology are inescapable in conducting business effectively. This includes computer literacy in organisations and the ability to execute E-HRM practices.

Learning organizations and transforming HR into a strategic business partner is important. Rudman (2010) also states that it is critical for HR practitioners in New Zealand. By empowering employees with the knowledge to take independent action, the learning organization maintains a highly motivated, innovative workforce, capable of superseding organizational and individual expectations. According to Bratton and Gold (2012), the creation of knowledge and its management are now considered as a source of competitive advantage. It is estimated that, in the future, differences in organizations and nations will depend on the extent to which information can be obtained, turned into knowledge and applied to production. A key reason for this development is seen to be the advances made in information communication technology (ICT), which is used to store, retrieve, analyze and communicate information. Finally another important aspect which plays a role in the execution of effective business is international competition. Various aspects are of importance in organisations, depending once again on the type of business being focused on. It is also clear that line management, as well as HR practitioners should ensure that they are au fait with the impact of national and international competition on organisations if they wish the organisation they work for to be successful.

METHODOLOGY

The background to the methodology used in this paper is presented first and thereafter the approach used to gather information is then presented. Thereafter the findings are presented.

Background to the collection of the empirical data

A very comprehensive questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand (NZ) and Australia in 1994. It was used in a survey to identify the future competencies and roles of HR in N Z in 1994 and forecasted for the year 2000 by the then Institute of Personnel Management, now known as the Human Resource Institute of New Zealand (IPMNZ 1994). That study included the views of 264 respondents formed the basis for subsequent research studies regarding HR practitioners.

The questionnaire was edited and slightly modified and used in 2000 by Burchell (2001) in association with the (HRINZ) to determine a future perspective on human resources issues in 2000 and forecasted for 2010 in NZ. The minor modifications involved updating and reducing the questionnaire and refining the questions for clarity.

Respondents were also asked to rank the five most important elements regarding goals, roles and activities in the various categories which were contained in the questionnaire. The final section of the said questionnaire sought to obtain demographic information from respondents. A total of 1,510 questionnaires were mailed, from which 150 usable responses were received, which represents 10% of the sample. After the responses were verified, the survey results were written up. At the time the research was executed in 2000, advanced statistical analysis was not applied, and the compilation of the questionnaire was limited to the use of a variety of statistical analysis methods. Therefore, in the follow-up survey in 2010 various improvements to the previous questionnaire were introduced to enable the application of different methods, as shown in the section outlining the repeat study.

Repeat study covering HR practice in New Zealand in 2010 forecasted for 2020

The NZ study of 2000 was again used with minor modifications in 2010. It was clear from the previous studies' responses that the questionnaire was too detailed as it covered 358 questions, which in retrospect, discouraged participation. The fact that it was paper-based also reduced the previous response rate. For the 2010 repeat study, the questionnaire was shortened, but some sections were again expanded to include contemporary aspects such as social media in the HRIS section. The reporting format was also changed to an e-survey using Survey Monkey. A 5-point Likert scale was also used which ranged from 1 = "unimportant" to 5 = "critical to success". The Likert scale was not applied in the 2000 survey.

Due to the growing importance of social media and e-HRM, the 2010 survey was expanded to include some new questions on aspects such as the use of Facebook, Twitter and Blogging. This was in response to the importance of HR communication and e-HR, which was identified in 2000 and forecasted for the 2010 survey. However, at the time the 2000 survey was executed, social media phenomena such as Facebook and Twitter were non-existent so comparisons of these aspects with the 2000 results would have been impossible. The target population was again limited to HRINZ members, and those who had registered to participate in HR research requests. The HRINZ provided links to the total number of HRINZ members in this category, being 635. A total of 119 members responded but only 98 questionnaires were fully completed and usable, resulting in a 15.4% response rate. Furthermore, due to the different reporting formats used in the different surveys (from being merely listing and identifying priorities to a Likert Scale and an e-format for respondents), not all results are precisely comparable. However, trends previously identified are indicative of the present importance and context of the 2010 survey and forecasts for 2020, which are reported in this paper. It must be noted that due to the magnitude of the research projects and their longitudinal nature, only the results focusing on HR in the business environment are reported on in this article, which represents a very small section of the overall survey.

The similarity in the 2000 and 2010 surveyed profile of the respondents adds value to the results and is discussed below.

In the current study in NZ (2010), the most frequent title was HR Manager (46.7%), and the next most common title was HR non-management (16.7%). Those two titles accounted for 60.2% of the reported titles compared to 72.5% in 2000.

It needs to be noted that a limitation regarding the two surveys of 2000 and 2010 could also be viewed as an advantage. As pointed out earlier in the methodology, the 2010 survey participants obtained from the HRINZ database only included members who were registered and who requested to participate in HR research from HRINZ. This perhaps explains the larger number of consultants in 2010 (up to 24.7% from 13.8%) and the lower number of CEOs (down from 10.1% to 1.4%). The overall positive implication is perhaps a higher quality and more focused response from participants in 2010, which also resulted in a higher overall response than that for the 2000 survey.

In NZ most organisations (83%) have fewer than 10 employees. In this study, the participants are from different sized organisations and are categorised as follows, namely 10 – 49 secondly, 50 – 99; thirdly, 100 – 499 and lastly 500 or more. For both the 2000 and 2010 surveys, the respondent profiles were comparable. Note that the following groupings were compiled for analysis: small organisations with fewer than 10 and the various categories that are also compatible. It should be noted that NZ is predominantly a country of small businesses, with 93.3% of enterprises employing 19 or fewer people ("SMEs in NZ: Structure and Dynamics" 2006).

It is shown in Table 1 that the results are comparable as far as the profile of respondents by industry sector is concerned and that the 2000 results and 2010 results could be used with confidence for trend identification.

Table 1: Profile of the respondents by industry sector for 2000 and 2010

Sector	NZ profile 2000	NZ profile 2010
Agriculture, hunting, forestry and fishing	4.2%	4.3%
Mining and quarrying	1.4%	1.5%
Manufacturing	5.5%	6.9%
Electricity, gas and water	9.6%	8.3%
Wholesale and retail trade, restaurants and hotels	5.0%	6.2%
Transport, storage and communication	3.3%	4.1%
Business, insurance and financial services	13.7%	12.5%
Community, social and personal service	11.0%	11.1%
Education	20.7%	20.8%
Other	25.6%	24.3%
TOTAL	100%	100%

Results of the survey

The results of the e-survey were subject to verification for SPSS analysis purposes. The Likert Scale application (ranging from 1-Unimportant to 5- Critical to success) for the 2010 survey enabled the researchers to apply statistical analyses which were not possible for the 2000 survey. Parametric and non-parametric tests were applied using the Wilcoxon Signed Ranks Test as well. Significance levels at the $p < 0.01$ were recorded. This level of statistical analysis was not possible in 2000 due to the design of the then questionnaire. The current approach was, however, vital for the 2010 comparisons with the 2020 forecasts in order to identify significant differences. It must be noted that relevant results from the 2000 study and forecasts for the 2010 study are primarily compared with the current results (that is, 2010 and forecasted for 2020). Reference is also made to the 1994 survey results for longitudinal purposes.

FINDINGS

Only aspects relating to the business environment for HR are focused upon. There is a discussion and comparison of aspects of each survey for the respective time periods after the results have been presented. The results for all the surveys are presented separately prior to discussing the combined results in order to make deductions and then draw conclusions.

Results of the historical 1994 survey with forecasts for 2000

The 1994 survey was executed by the Institute of Personnel Management (IPM) in 1994 as outlined in the methodology section of this paper. The IPM was the fore-runner to the current HRINZ. The topics which were contained in that questionnaire were as follows:

Increased national/international competition; increased governmental regulation of the employment relationship, growth through joint ventures, acquisitions and alliances; awareness of the increased reliance on

automation technology to produce goods and services; more sophisticated information/communication technology; changing attitude of society towards business; heightened concern about pollution and natural resources; heightened focus on total quality/customer satisfaction; changing employee values, goals and expectations, e.g. less loyalty to current employer; fewer entrants into the workforce; inadequate skills of entrants into the workforce; changing composition of the workforce with respect to gender, age and/or ethnicity; greater concerns about the confidentiality of personal information.

For the subsequent surveys in 2000 and 2010, minor modifications to the questions were introduced to reflect a more modern day business environment. Questions such as reliance on automation and non-traditional business structures and so on were deleted and replaced with questions such as “organisation learning and knowledge management”.

The top 5 responses from the results of the 1994 survey were: First, heightened focus on total quality/customer satisfaction; second, increased national/International competition; third, changing employee values, goals and expectations; fourth, increased governmental regulation of the employment relationship, fifth new information technology.

The top 5 responses from the results of the forecast for 2000 were: First, increased national/International competition (was 2nd in 1994); second, heightened focus on total quality/customer satisfaction (was 1st in 1994); third, changing employee values, goals and expectations (same as in 1994); fourth, globalisation of the economy (not in top 5 in 1994); and fifth, globalisation of business structures (not in top 5 in 1994).

The 2000 survey results with forecasts for 2010

Note that the questions contained in the 2000 survey are shown in the 1994 survey, although further refinements of the questions took place, such as globalisation of corporate business structure; breakdown of trade barriers; increased energy costs; and cross border application of employee rights. In the 2000 survey respondents were once again asked to select only the 5 changes which were current for 2000 and forecasted for 2010 that would impact most, and they are presented below.

The top 5 responses from the results of the actual 2000 survey were: First, cross border application of employee rights; second, increased national/international competition; third, increased governmental regulation of the employment relationship; fourth, increased energy costs; and fifth, globalisation of the economy.

The top 5 responses from the results of the forecast for 2010 were: First, increased national/international competition (was 2nd in 2000); second, greater concerns about the confidentiality of personal information (nowhere in 2000); third, cross border application of employee rights (was 1st in 2000); fourth, organisational learning and knowledge management (nowhere in 2000); and fifth, globalisation of corporate structures (was 5th in 2000).

These results will be compared and discussed with those for the survey in 2010 and forecasts for 2020.

The 2010 actual survey results with forecasts for 2020

This part of the paper presents the results of the 2010 survey together with the respondents' forecasts for 2020. As previously outlined, the findings and discussions are only focused on the HR business environment issues that add value to the bottom line, which represents data from section 5 of the 2010 survey only. Section 5 of the HR survey again comprised 16 questions, but it included more refinement of the previous surveys. One of the questions which, was eliminated was increased energy costs, which attracted a low response in the forecast for 2010.

It must be noted that new questions were introduced in the 2010 survey which were not part of the 2000 survey. This was done because of the changed circumstances of the global business environment and to reflect the modern trends which HR ought to be familiar with. New questions were, for example, growth of electronic

business, organisational learning and knowledge management, and managing the effect of change in the organisation. The full set of questions for the 2010 survey still closely mirror the original set of questionnaires.

In the 2010 survey respondents were required to apply the 5-point Likert Scale ranging from 1 being “unimportant” to 5 being “critical to success” for both 2010 and 2020 when providing their responses. This approach would enable a measurable refinement of the approach to and analysis of the results which were obtained in previous surveys. The position of the responses would also be indicative of the importance of the results for comparative purposes. For the 2010 survey, the application of statistical methods to reveal the significance of the results and the position thereof would, therefore be possible.

The 2010 results analysis, however, only focused on the last 2 combined responses of respondents, namely “Very Important” and “Critical to Success”. Furthermore, only the results of the questions which attracted a combined response of two-thirds and above are discussed. The generally accepted convention of a majority clearly indicates a direction decision which is more important than a standard majority, which is then two-thirds instead of 50%. This is applied as a sharpened focus for the analysis of the 2010 survey results and the forecasted ones for 2020. Lastly, as a further refinement, parametric and non-parametric tests were applied, in particular the Wilcoxon Signed Ranks Test to obtain a much more focused picture of the results. The results which attracted a response of more than two-thirds are shown in Table 2 and are listed from the highest response to the lowest. Results below two-thirds are not analysed, but merely taken note of when possibly applicable to the functions of HR. Only one response satisfied the criteria and is listed below.

The top 5 responses from the results of the actual 2010 survey were: First, managing the effect of change in the organisation; second, heightened focus on total quality/customer satisfaction; third, organisational learning and knowledge management; fourth, more sophisticated information/communication technology.; and fifth, increased national/international competition.

The top 5 responses from the results for the 2020 forecast were: First, managing the effect of change in the organisation (also 1st in 2010); second, heightened focus on total quality/customer satisfaction (also 2st in 2010); third, more sophisticated information/communication technology (was 4th in 2010); fourth, organisational learning and knowledge management (was 3rd in 2010); and fifth, increased national/International competition (was 2st in 2010).

Because more sophisticated statistical methods could be applied in the 2010 survey, which were not possible with the previous survey, a more in depth analysis could be undertaken. See Table 2 below.

Table 2: Responses by question for 2010 and 2020 at 66.66% and above

Q No.	Question detail	Position of response	Response by year
16	Managing the effect of change in the organisation	1 1	2010 – 66.7% 2020 – 83.4%

In Table 3, responses are ranked for 2020 which were not part of the two-thirds and above threshold for both the 2010 and 2020 questions in order to reflect a further refinement of the results. Results are again listed from Highest to Lowest.

Table 3: Single results by question for 2020 only which attracted a 66.66% and above response

Q No.	Question detail	Response by year
8	Heightened focus on total quality/customer satisfaction	2020 – 76.6%
5	More sophisticated information/communication technology	2020 – 75.0%
15	Organisational learning and knowledge management	2020 – 68.4%
1	Increased national/International competition	2020 – 66.7 %

From the responses it is clear that the perception of the respondents regarding 2020 has shifted measurably as to what was regarded as “Very Important” and “Critical to Success” in 2010. These results are noteworthy and need to be explored in more detail as well as being compared with the results of previous surveys. It must be noted that all responses which have not attracted a response of 66.7% and above for either 2010 or 2020 are not addressed for the rest of the analysis in this paper. No further discussion is undertaken as they are apparently either unimportant or of no concern. They may be in place but not on the radar screen in organisations as far as the HR respondents are concerned. The questions which were not meaningful re the results are not further discussed.

A further refinement of the results is presented in Table 4 where the questions for either 2010 or/and 2020 which attracted 66.66% and above responses are listed after further statistical analysis was applied. It is indicated in the table under the section “Question and year” in terms of the applicable categories.

In the next section the results are analysed while bearing in mind the significance of each as shown in Table 4 as well as in the literature survey to determine the context of the results. The analysis is initiated for both the 2010 and 2020 results of the same question above the threshold of 66.66% and proceeds from highest to lowest. The discussion of the 2020 only results, which were above the threshold and which were significant as well, as shown in Table 4, are analysed and discussed in the next section.

ANALYSIS OF RESULTS

It must once again be noted that only responses which attracted 66.66 % and above are focused on in this section.

Table 4: Paired comparisons and significance of results

Paired Q number	Question and year	Mean 2010	Mean 2020	Significance
16	Managing the effect of change in the organisation (2010 and 2020 above threshold)	3.95	4.4	.000* /.000**
8	Heightened focus on total quality/customer satisfaction (only 2020 above threshold)	3.62	4.20	.000* /.000**
5	More sophisticated information/communication Technology(only 2020 above threshold)	3.20	4.15	.000* /.000**
15	Organisational learning and knowledge management(only 2020 above threshold)	3.28	3.97	.000* /.000**
1	Increased national/international competition (only 2020 above 60% threshold)	3.02	3.72	.000* /.000**

*p<0.01 (Note: Scale used was: 1-Unimportant, 5- Critical to success) ** Wilcoxon Signed Ranks Test

Managing the effect change in organisations

Managing the effect of change ranked first in 2010 and 2020, at 66.7% and 83.4 % respectively, which reflects the increasing awareness of the need for managing the effect of change for the next decade as well. In recent years in New Zealand, there have been numerous cases where sudden cuts in government spending or zealous cost cutting by senior managers have led to major reorganizations and downsizings that have resulted in loss of staff goodwill. This could perhaps explain the importance accorded to manage the effect of change by HR practitioners for the year 2020 (Macky, 2008; Nel et al., 2012).

This result is also significant after the various tests showed p<0.01 being .000, and applying the Wilcoxon Signed Ranks Test as well of the paired comparisons for 2010 and 2020. It is thus concluded that managing the effect of change in organisations is significantly important for the future as well. This was a new question for 2010 and not contained in the previous survey, yet it is clear that it is a factor which plays an important part in the Business environment in NZ as identified by HR practitioners thinking of the future as well.

Heightened focus on total quality/customer satisfaction

For the HR practitioners surveyed in 2010 the heightened focus on total quality/customer satisfaction was the second most important attribute in the New Zealand business environment with a response of 76.6% for 2020, but it was below the threshold for 2010. Customers bring pressure on a business to match competitors' prices, and these pressures filter down to line managers who in turn seek better and more efficient services from functional managers such as those in HR. This could perhaps provide the motivation for the 2020 result, with a 76.6% ranking. This attribute is the second most important in the business environment after change management. This result is also significant after the various tests were applied showing $p < 0.01$ being .000 and applying the Wilcoxon Signed Ranks Test as well of the paired comparisons for 2010 and 2020. It is thus deduced that total quality/ customer satisfaction is significantly important for the future as well. This also confirms the trend identified as far back as 1994 when it was the top priority then and second for the 2000 forecast, albeit low on the 2000 survey results. It is thus an important factor, which plays a critical role in the business environment in NZ, as identified by HR practitioners.

More sophisticated information communication technology

Respondents ranked more sophisticated information communication technologies at 75.7% for the next decade. It did not reach the threshold in 2010 although it was regarded as important. In the literature it was suggested that modern information and communication technologies have created a "global village," in which people can communicate with others across the world as if they were living next door. (<http://www.techterms.com/definition/ict>). According to New Zealand's Trade & Enterprise Department, the ICT industry contributes around \$19.3 billion to the economy each year. (www.nzte.govt.nz). It is perhaps that more sophisticated information communication technologies are critical in the business environment in future.

This result is also significant after the various tests have been applied showing $p < 0.01$ being .000 and applying the Wilcoxon Signed Ranks Test as well for the paired comparisons for 2010 and 2020. It is deduced that information communication and technology is very important for the future as well. This also confirms the trend identified as far back as 1994 when information technology was the fifth priority. It is important in the business environment in NZ as identified by HR practitioners, particularly for the future in NZ.

Organisational learning and knowledge management

Respondents attributed a weight of 68.4% for 2020, but it did not reach the threshold for 2010. The result is in line with various researchers (Rudman, 2010; Bratton and Gold, 2012) who pointed out that it appears that organizations develop opportunities to actively learn new information on an ongoing basis. These developments could perhaps explain why organisational learning and knowledge management is important New Zealand HR practitioners for the year 2010 and 2020. This result is, however, also significant after the various tests have been applied showing $p < 0.01$ being .000 and applying the Wilcoxon Signed Ranks Test as well of the paired comparisons for 2010 and 2020. It is deduced that organizational learning and knowledge management is significantly important for the future although it was not highlighted in the previous surveys except in the 2000 survey as the fourth priority forecasted for 2010. It is a more recent high level phenomenon in an organization's quest to be more competitive in future as shown in the 2010 survey with forecasts for 2020.

Increased national/international competition

Increased national and international competition achieved a response of 66.7% for the 2020 forecast. It did not reach the threshold in 2010 although it was regarded as important by respondents.

Like other countries New Zealand faces intense competition in most areas of economic activity. Distance from markets and the cost advantages enjoyed by low-wage countries in Asia and elsewhere, for example make it increasingly difficult for secondary industries (e.g. manufacturers) to operate profitably in New Zealand. The initiatives the government has taken to create a more productive and competitive economy fall into six areas: access for New Zealand businesses to capital markets, innovation and ideas, skilled and safe workplaces, natural resources, infrastructure (including electricity, broadband, transport) and export markets.

(<http://www.national.org.nz/economy.aspx>). This could explain the importance accorded by HR practitioners to increased national and international competition in the business environment in the years 2010 and 2020.

It is also significant after the various tests were applied showing $p < 0.01$ being .000 and applying the Wilcoxon Signed Ranks Test as well for the paired comparisons for 2010 and 2020, so is deduced that increased national and international competition is significantly important for the future as well. This also confirms the previous surveys' results in that it is the most consistent result from 1994 through to 2010. It was second in 1994 and first forecasted for 2000. In the 2000 survey it was second and first forecasted for 2010. It is thus a continuing factor which plays a very important part in the business environment in NZ for the future as well as far as HR practitioners are concerned.

CONCLUSIONS AND RECOMMENDATIONS

The 2010 results of the survey and the forecast for 2020 revealed that the following indicators are important in the business environment as identified by HR practitioners in New Zealand: manage the effect of change in organisations, focus on quality/customer satisfaction, information communication technology, organizational learning and knowledge management and national/international competition. Some of these results overlap with those of the surveys from 1994 and 2000 which is indicative of the view of HR practitioners regarding the business environment. The significance of the results of the 2010 survey should also provide confidence regarding the future foci in the business environment according to HR practitioners.

It is concluded that the ability to manage the effect of change is currently in sharp focus for HR managers in the organisations they work for. However, HR managers also need to be change agents and leaders as they have to go beyond the traditional roles of HR managers. HR managers must continue to support line management in various areas in the business environment to add to the bottom line and to harness opportunities for the future. There should also be a sharp focus on the identified aspects of quality and customer satisfaction and the impact of domestic and international competition on business, since this has been a focus for HR practitioners over the 25 years of the longitudinal surveys. Priority proactive New Zealand management actions to address the implications of the research findings as perceived by HR respondents over a 25 year period, could perhaps be the following:

- Managers should be more aware of the accelerated impact of change on their organisations and initiate proactive measures to meet this challenge in future. They could perhaps consider utilising expert change agents specialising in the application of information communication technology to keep their businesses competitive because New Zealand is geographically isolated in the global context.
- They could utilise means to enhance New Zealand's competitive business endeavours in the international business environment. For example utilise high level HR practitioners to effectively capture knowledge management expertise to enhance customer satisfaction across the economy.

REFERENCES

- Bratton, J. & Gold, J. (2012). *uman Resource Management theory & practice*. (5thed.). UK: Palgrave Macmillan.
- Bryson, J. & Ryan, R. (2012). *Human Resource Management in the Workplace*. Australia: Pearson.
- Burchell, N. (2001). 2000 to 2010. 'Future directions for HR in New Zealand', *Presentation to the annual conference of the Human Resources Institute of New Zealand*, Wellington, HRINZ, New Zealand, September.
- Burchell, N. (2002). '1994 to 2010 Future directions for HR in New Zealand', Unitec, New Zealand, viewed 10 November 2011, http://www/hrinz.org.nz/info/hot_stuff/conference/noel_burchell.asp .
- Compton, R. (2009). Towards an Integrated Model of Strategic Human Resource Management – An Australian Case Study, *Research and Practice in Human Resource Management*, 17(2), 81-93.

Dessler, G. (2011). *Human Resources Management*, 12thedn, Prentice-Hall, Upper Saddle River, NJ.

Institute of Personnel Management New Zealand (IPMNZ). (1994). *Human resources priorities for competitive advantage 1994-2000, The IPM survey report*. Institute of Personnel Management New Zealand, Auckland, New Zealand.

Kotter, J. (1996). *Leading Change*. Boston: Harvard Business Press.

Lipiec, J. (2001). Human Resource Management Perspective at the turn of the Century. *Public Personnel Management*, 30(2): 137-45

Losey, M.R., Meisinger, S.R., & Ulrich, D. (2005). *Future of human resource management: 64 thought leaders explore the critical HR issues of today and tomorrow*, John Wiley & Sons, USA.

Ministry of Economic Development. (2006). *SMEs in New Zealand: Structure and Dynamics 2006*, Viewed 10 September 2011, <http://www.med.govt.nz/>

Nel, P.S., Werner, A., Du Plessis, A., Fazey, M., Erwee, R., Pillay, S. & Wordsworth, R. (2012). *Human Resource Management in Australia and New Zealand*. Australia: Oxford University Press.

Nel, P.S., du Plessis, A.J., & San Diego, J.(2011). Managerial implications for managers and HR practitioners: some longitudinal research findings in New Zealand, *Asia-Pacific Journal of Business and Management*,2(2), 17-30.

New Zealand Government. (2012). *Financial system coping well with international stresses*. News release. Financial Stability Report, 9 May 2012. <http://www.rbnz.govt.nz/news/2012/4773569.html> Date accessed: 10 May 2012.

Snell, S., & Bohlander, G. (2013). *Managing Human Resources*. 16th ed. Cengage Learning, South-Western, Australia.

Strack, R., Dyer, A., Caye, J.M., Minto, A., Leicht, M., Francouer, F., Ang, D., Bohm, H., & McDonnell, M. (2008). *Creating People Advantage. How to address HR challenges worldwide through to 2015*. The Boston Consulting Group. World Federation of Institute of Personnel Management Associations.

Ulrich, D., Younger, J., Brockbank, W., & Ulrich, M. (2012). *HR from the outside in*. New York, McGraw-Hill.

Waddell, D.M., Cummings, T.G., & Worley, C.G. (2011). *Organisational Change Development & Transformation*. 4th ed. Australia, Cengage Learning.

Websites:

Retrieved March 25, 2013 from <http://www.nzte.govt.nz/access-international-networks/Explore-opportunities-in-growth-industries/growth-industries/Pages/Information-and-communication-technologies.aspx>

Retrieved March 27, 2013 from <http://www.techterms.com/definition/ict>

Retrieved March 27, 2013 <http://www.national.org.nz/economy.aspx>

A LONGITUDINAL COMPARISON OF ASPECTS OF DIVERSITY IN TWO COMMON WEALTH COUNTRIES

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ABSTRACT

Commonwealth countries have a common colonial background with accompanying problems and opportunities. Recognising and addressing diversity and equal employment opportunity are common issues in these countries. The focus is on four empirical research projects over 10 years in New Zealand and South Africa between 2000 and 2010 with forecasts up to 2020 enabling comparative analyses in a longitudinal manner. The overall results show a heightened awareness of particularly diversity and equal employment opportunity which highlights an increased role for HR practitioners in both countries. Opportunities are created for business leaders to take note of the commonality between New Zealand and South Africa which could lead to enhanced inter-country business activities and improved returns.

INTRODUCTION

Commonwealth countries in particular are experiencing a great increase in population and population mobility, which measurably increases the necessity to manage diversity, amongst others. In these countries organisation are generally under greater pressures than developed countries be able to attract a sufficient number of job candidates who have the abilities and aptitudes needed to harness future business opportunities. It is also common knowledge that the workforce is the lifeblood of organisations and they represent one of its most potent and valuable resources (Rudman, 2010; Dowling, Festing and Engle, 2013). The effect of being able to attract and manage diverse staff presents organisations with enormous challenges to be successful, in multicultural countries, for example, South Africa and New Zealand. The emergence of globalisation, development in technology and telecommunications; the shift towards a knowledge-based workforce, labour legislation and intensifying competition for skilled labour also create new competitive realities for organisations.

Organisations are keen for the human resources (HR) function to go beyond the delivery of cost effective administrative services and progress to providing expertise on how to leverage human capital. Simultaneously, the role of HR practitioners as strategic business partners and leaders of change has also received considerable attention (Haggerty and Wright 2009). The previous decade also saw the HR profession faced with criticism and questions regarding its validity, which subsequently resulted in a significant body of research that linked HR practices to organisational performance (Ulrich et al., 2012). Ultimately, the competitive forces that organisations face today create a new mandate for HR, and this necessitates changes to the structure and role of the HR function (Bryson and Ryan, 2012). The general roles expected of HR managers and functional line managers are not dissimilar in most economies and cultural environments around the world (Compton, 2009; Dessler, 2011; Galang, 2008; Nel et al., 2012; Pretorius, 2010; Rudman, 2010; Wright, 2008). The role of HR managers in particular is also interdependent with line management's activities because attempts to either be practising HR or only line management would result in organisations being in danger of becoming dysfunctional or even perishing. Ignoring the particular relationships between these functions can result in serious negative consequences for an organisation or even a country.

According to Paine (2009), HR manager interaction should occur constantly with all line managers in organisations and should cover various facets of a business's activities. It should focus on the aspects of change, diversity and intercultural management in organisations which affect all areas of its functioning. A business focus and approach is required of all categories of management in organisations. This includes HR staff, who should be au fait with management in general, as it is influenced by HR. The competencies of HR staff, which should be at a high level to meet the challenges of businesses in terms of their core functions, are also important. These aspects as they relate to the role of HR management in organisations are discussed in the next sections. In today's global economy HR practitioners must, therefore, be prepared to meet the considerable challenges and expectations posed by the continuing evolution of their role and show how their function is creating and adding value to the organisation. As recognised by Ulrich and Brockbank (2005), HR should not be defined by 'what it does' but by 'it's contribution to achieve organisational excellence' (p.134).

The research propositions is to identify components of diversity and related aspects in two relatively similar commonwealth countries, yet being distinctive in its population composition.(Nel et al 2011) Identifying components applicable to the role of the HR functionaries in organisations are explored in order to guide and support management to do business more effectively and thereby creating and enhancing business opportunity is undertaken. The research entails identifying particular elements of diversity, equal opportunity and worklife balance which is of importance in both countries to perhaps enable improved inter-country business activities as well.

LITERATURE SURVEY

Researchers have taken different stances when referring to HR practices, but it appears that there is a consistent focus on the contribution of HR practices to enhancing human capital (Du Plessis et al. 2007). The shared assumptions of a number of authors has resulted in the definition that 'HR practices are a set of activities that actively contribute to achieving organisational objectives' (Macky, 2008), which have the ability to gain a competitive advantage over other organisations. It is the HR function's effectiveness in an organisation within the ambit of a country's applicable legislation that will determine the quality as well as the extent of observing all elements of diversity management. A range of change "triggers" to which organisations must respond in order to survive often happen unexpectedly. These factors are, amongst other things, laws and regulations (for example, legislation on age discrimination), the globalisation of markets, and the internationalisation of businesses reacting to major political and social events (Galang, 2008; Mthembu, 2010).

Diversity

Globally diversity has been a key focus in most countries around the world as a result of the Universal Declaration of Human Rights in 1945. The United Nations and its various bodies have also been instrumental in the acceptance of various conventions which provide guidelines on a global scale, such as Convention 111, which outlines anti-discrimination principles. Having people from different cultures and backgrounds is also the norm in NZ and SA organisations due to the fact that these countries are changing continuously and becoming increasingly multi-cultural and diverse (Du Plessis, 2009; Bryson and Ryan, 2012). According to Ulrich, Younger, Brockbank and Ulrich (2012), worldwide immigration patterns have sharply internationalised the labour force and there is a need for organisations to move beyond intellectual diversity and formally ingrain diversity into their culture. HR as a profession, therefore, has to recognise and espouse the value of diversity because diversity management has been identified as an emerging strategic necessity for survival in a globally diverse environment.

In this regard, diversity is defined as follows by Nel, Werner, Poisat, Sono, du Plessis and Ngalo (2011): "it encompasses all forms of difference among individuals, including culture, gender, age, ability, religious affiliation, personality, economic class, social status and sexual orientation" (p. 113). Diversity is the opposite concept to universality because certain activities occur across cultures, that is, they are common to all cultures, but their manifestation may be unique in a particular society.. Cultural diversity should, therefore, be addressed by observing Hofstede's (1991) approach to understanding cultural diversity.It also needs to be noted that NZ has both an indigenous and a western culture, which suggests that both Maori and European culture are meant to have an influence on society and in workplaces (Jones, Pringle and Shepherd, 2000). In addition, there

is also a growing number of Pacific Island people, Asians, Indians and many other ethnic groups, which can have implications on workplace diversity. This makes NZ quite similar to SA in a number of contexts. Different interests, backgrounds, competencies, skills and talents, if harnessed properly, can be beneficial to productivity and successful teamwork.. Diversity management also involves conscious efforts to actively recruit members from ethnic minorities. Demographic trends in NZ and SA clearly indicate that diversity is a distinguishing characteristic of both countries. HR practitioners need to recognise the uniqueness of each individual and the varied perspective and approach to work that they bring to the organisation (Rijamampianina and Carmichael, 2005).

It is also well documented that organisations that effectively manage change by continuously adapting their bureaucracies, strategies, systems, products and cultures in response to the impact of the complex, dynamic, uncertain and turbulent environment of the twenty-first century are identified as masters of renewal (Nel et al. 2011; Truss, Mankin and Kelliher 2012; Ulrich et al. 2012). This also applies to the way in which the composition of the workforce with respect to gender, age and ethnicity is managed as its profile changes in different countries.. The HR function has become more multifaceted over the years as the pace of change quickens, requiring a transition towards more value-added roles, such as the role of a change agent (Ulrich et al. 2012). HR practitioners as champions have to have the competencies, capabilities and discipline to make change happen and need to be skilled in the management of employee resistance to change. Managed change is proactive, intentional and goal-oriented behaviour). Overall, there is a clear indication that change is inevitable, and it is part of managing ever increasing diversity in organisations' workforces.

Equal opportunity

Although diversity is acknowledged globally as an inherent part of any modern society, it is also critical that equal opportunity is actively supported and preferably legislated for to provide maximum freedom to a work force so that they may work without fear and in conditions which promote a level playing field. Usually the constitution of a country, and its labour legislation in particular, would provide this protection to the work force. In SA the Constitution of 1996, the Employment equity Act of 1998, and Labour Relations Act of 1995 in particular, guarantee this protection to its citizens and the work force. In New Zealand the Human Rights Act of 1993 and Employment Relations Act of 2000 would broadly fulfil these roles. Other labour legislation is, of course, relevant in both countries apart from the major statutes outlined above.

Work-Life Balance

Finding the 'balance' between work and non-work, with neither of them intruding into the other in terms of time, resources, and emotional energy, could be an elusive goal for individuals and organisations (Nel et al. 2012). An organisation's response to their employees' needs may be family responsive programmes, which may include components such as leave programmes, dependent care and health/wellness programmes (Macky, 2008; Bryson and Ryan, 2012). Offering flexible work arrangements, which are the cornerstone of almost all work-life balance initiatives, can have significant beneficial results (Strack et al., 2008). Many younger employees tend to have new and non-traditional expectations about work. A particular demographic challenge comes from Generation Y (people born after 1980). As observed by Guthridge et al. (2008), these individuals demand, among other things, a better work-life balance. It becomes evident that these employees, who operate from a position based on their perception of the organisation's commitment to work-life balance, need to be managed differently. Ultimately, employees are interested in having both a good job and a life beyond work, and there is a need for HR practitioners to implement policies and practices that will increase employee commitment and also show commitment to diversity in the workplace.

BACKGROUND TO THE COLLECTION OF THE EMPIRICAL DATA

A very comprehensive HRM questionnaire covering 358 items to identify HRM and management trends was jointly compiled in New Zealand and Australia in 1994. It was used for a survey to identify the future competencies and roles of HR in those countries for the year 2000 for use by the Human Resource Institute of New Zealand (IPMNZ, 1994). This study formed the basis of four subsequent research studies which could be used as pointers regarding diversity, equal employment and work-life balance. The 4 studies are briefly outlined below. Note, however that, due to the magnitude of the various studies, only issues focusing on the components outlined above are analysed and compared, for the various studies and reported in this paper.

Study no. 1 covering HR practice in New Zealand for 2000 and forecasted for 2010

The questionnaire of the New Zealand and Australia study in 1994 was edited and slightly modified and used in 2001 by Burchell (2001) in association with the Human Resource Institute of New Zealand (HRINZ) to determine a future perspective on human resources issues in 2001 and forecasted for 2010 in New Zealand. The minor modifications involved updating and reducing the questionnaire, as it was too long, as well as refining questions for clarity. The questionnaire covered human resource goals, roles and activities, as well as the implications of changes in the business environment and identifying practices for gaining competitive advantage. The respondents were asked to rank the five most important goals, roles, and activities in the categories, which were contained in the questionnaire for 2001 and 2010. Respondents were also asked to prioritise the future activities of HR. However, the reporting of the results and comparisons only focus on diversity-related issues in this paper.

The final section of the above questionnaire sought to obtain demographic information from the respondents. The questionnaire was distributed to all members of the Human Resources Institute of New Zealand. A total of 1510 questionnaires were mailed, of which 150 usable responses were received, which represents 10% of the sample. After the responses were verified, the survey results were written up.

Study no. 2 covering HR practice in South Africa in 2002 and forecasted for 2010

The same questionnaire used in NZ in 2001 was used with permission, after minor editorial modifications, for an identical survey in South Africa in the last quarter of 2002. The questionnaire was distributed by mail to all registered members of the Institute of People Management (IPM) in South Africa, regardless of the position they occupied in the organisation. The address list of the IPM was used to mail the questionnaire. It resulted in 1640 questionnaires being mailed. The survey results are based on a total of 207 useable questionnaires, and represent a 12.6% response rate.

The responses obtained from respondents in both countries' surveys were compared regarding the following: the profile of the respondents by profession, the organisation size, and the type of industry. From the response in both countries, it was clear that it was broadly similar for comparative purposes. There was, however, a difference between the largest employee size groupings between the two countries due to their demographic differences.

Study no. 3 covering HR practice in New Zealand in 2008 only

This study by Payne (2008) and an invitation to participate in this study went to 364 members of HRINZ that had 'opted in' to participate in any forthcoming HR research requests. A total of 179 participants responded to a reduced survey questionnaire, but only 151 completed questionnaires were usable, giving a response rate of 41%. This was representative of the 'opted in' members of HRINZ. The data was collected via an e-survey, which was specifically designed for this study.

The questionnaire consisted of six sections with 40 questions (this number was made up of main questions and sub-questions). Several sub-questions were formed to explore, amongst other aspects, diversity related themes. These were: change agent, strategic partner, recruitment and retention, work life balance,

diversity management, and demographic aspects. All the questions in the questionnaire were closed questions. It must be noted that aspects covered in this paper, due to length limitation only focus on the aforementioned topics. Some of the themes in the study were diversity related aspects and form a small part of the actual study, but they are used for comparative purposes in this paper, and they could be useful to obtain a picture of the views of HR professionals with regard to diversity.

Study no 4 - repeat study covering HR practice in New Zealand in 2010 forecasted for 2020

The NZ study of 2001 was again used with minor modifications in 2010. It was clear from the previous studies that the questionnaire was too detailed, which, combined with the fact that it was paper based, discouraged participation. For the 2010 study, a section on information management was eliminated by using a sample of eligible respondents. The reporting format was changed to an e-survey using Survey Monkey as well. A 5-point Likert scale was used, which ranged from “unimportant” to “critical to success”.

The 2010 study again focused on the HR practitioners in NZ organisations who are registered as members of the Human Resources Institute of New Zealand (HRINZ). At that time, the HRINZ had 3,620 individual members who were involved in the management and development of HR in private and public sector organisations throughout NZ. The target population was limited to HRINZ members who had registered to participate in HR research requests that the HRINZ provided links to, and the total number of HRINZ members in this category was 635. A total of 119 members responded but only 98 questionnaires were fully completed and usable, resulting in a 15.4% response rate.

ANALYSIS OF RESULTS

The results of the various studies are compared in this section and conclusions drawn from it.

Diversity Management

According to the research results recorded by Payne (2008) the increasingly diverse workforce in NZ is interesting in terms of diversity management. The results reveal that the capacity to effectively implement a diversity management programmes is 28.4% (category 4 and 5 combined). Almost half of the respondents (43%) indicated a ‘neutral’ view regarding this capability.

Table 1: Self-identified capabilities in the area of diversity management

DIVERSITY MANAGEMENT					
1 for 'significant need for improvement' – 3 neutral - 5 for 'major strength'	1	2	3	4	5
Capacity to effectively implement diversity management programmes	5.3%	23.2%	43.0%	23.8%	4.6%
Competent to deal with the application of legislative issues of diversity management	4.6%	12.6%	28.5%	38.4%	15.9%

Competency in the ability to deal with the application of legislative issues of diversity management and the ability to effectively use the talents of people from various backgrounds were identified at 54.3% and 54.2% of respondents as ‘strength’/‘major strength’.

HR practitioners need to have the capabilities to articulate the changes required, make them explicit, and lead the process which was previously identified by other researchers reporting on the SA survey (Du Plessis, Beaver and Nel, 2006). It can be deduced that even though HR practitioners in NZ organisations in particular have a moderate level of capabilities in diversity management, they must invest time and effort to formally ingrain diversity into the culture if they want to maximise the potential of all available talent.

Equal Opportunity

This aspect refers to Equal Opportunity for females, minorities, and persons with disabilities.

Table 2: Comparison of equal opportunity activities for females, minorities, and persons with disabilities in South Africa (SA) and New Zealand (NZ)

2000 Actual	2010 forecast	% Increase	2002 Actual	2010 forecast	% Increase	2010 Actual	2020 forecast	% Increase
SA %	SA%	SA%	NZ%	NZ%	NZ%	NZ%	NZ%	NZ%
70.79	82.45	11.66	16.43	27.45	11.02	75.2	82.4	7.2

The 2010 forecasted results for South African respondents are (82.45%) and this represents an 11.66% increase over the 2002 figure. This emphasises the continued requirement for maintaining an equitable workplace, and the strong focus on redressing perceived past imbalances. In 1998 the Employment Equity Act set out inter alia to eliminate unfair discrimination in employment practices and promote a diverse workforce broadly representative of South Africa's people.

In New Zealand, however, equal employment opportunities (EEO) were low, with only 16.43% expressing high satisfaction with present activities, and 27.45% indicating that it was very important. This relatively low concern with EEO may be accounted for by New Zealand's long history of anti-discriminatory legislation (Bryson and Ryan, 2012; Rudman, 2010), and well-established HR practices.

The 2010 and 2020 result for New Zealand shows a significant increase which clearly indicates a heightened awareness of equal opportunity as the demographics of NZ is changing. The increase was significant over the previous forecast for 2010 versus the actual result for 2010 as well as the forecast for 2020. However, there are still many aspects, such as gender pay disparity, which will need the attention of HR professionals in both countries and probably elsewhere to enhance and consolidate aspects relating to diversity.

Work-life Balance

The research results recorded by Payne (2008) are discussed in this section regarding work life balance.

Table 3: Work-Life Balance

WORK/LIFE BALANCE					
1 for 'significant need for improvement' – 3 neutral - 5 for 'major strength'	1	2	3	4	5
Proactive in the approach to overcoming barriers to implement work-life initiatives	5.9%	11.2%	29.1%	39.7%	13.9%
Successful in benchmarking & measuring the effectiveness of work-life initiatives	7.2%	26.4%	42.4%	17.9%	5.9%

According to the research results recorded by Payne (2008), the capability to be proactive in the approach to overcoming barriers to implement work-life initiatives showed that 53.6% (4 and 5 combined) of the respondents regarded it as a 'strength'/major strength'. An unexpectedly high 29.1% (3 being neutral) was also recorded. Success in benchmarking and measuring the effectiveness of work-life initiatives was perceived as being strength / major strength by only 23.8% of respondents.

Organisations' responses to employees' needs may range from providing flexible work arrangements to addressing employees' growing desire to have more family-friendly working environments. These aspects would certainly contribute to the promotion of diversity awareness in organisations as well as in a country as a whole. More flexible time-off arrangements can also encourage more education and training, which ultimately addresses the issue of skill shortages. If organisations accept that HR practices are potentially going to produce beneficial

outcomes for the organisation and the employee, then the areas of practice that are more likely to contribute positively should be identified. HR practitioners need to be significantly more proactive in their approach towards improving work-life policies.

CONCLUSIONS

A comparison of the results from the surveys executed in 2001 in NZ, 2002 in SA, Payne (2008), and again in NZ in 2010 with forecasts for 2020 reveals significant changes in some areas. It provides some interesting pointers for both NZ and SA regarding diversity and its applications in particular countries, provided the commonwealth context of these countries is observed.

There has however, not been much difference in the forecast for South Africa, nor in the actual result for New Zealand for 2010. Diversity certainly appears to have become even more important in New Zealand, particularly for 2020. This trend is probably also applicable to South Africa, as demographic changes are speeding up worldwide, although there will be differences between developed and developing countries.

The following capabilities stemming from the results and comparisons of the different surveys are necessary for human resource practitioners in particular and businesses in general in the area of diversity management:

- Effectively implementing diversity management programmes
- Dealing with the application of legislative issues of diversity management
- Using the talents of people from various backgrounds, experiences and cultures

To manage equal opportunity includes the following:

- More awareness of the plight of females, minorities and persons with disabilities
- More focused attention paid to increasing support from governments in the form of financial rewards, for example, for mentally challenged persons being cared for by parents and caregivers.

To manage work-life balance human resource practitioners in particular need to:

- Develop and implement policies in response to changing demographic trends
- Implement a proactive approach to overcoming barriers regarding work-life initiatives.

To manage change effectively businesses need to:

- Successfully frame business strategies and be able to making key business decisions
- Develop and implement coherent HR strategies which are aligned to the business strategy
- Develop an achievable vision for the future and envisage its probable consequences

The various issues which were identified provided avenues for the refinement of HR practitioners' jobs to promote and observe diversity in particular. The most significant one is the expectations and challenges for the HR practitioner in aligning HR strategies with business strategies. Previous studies show an increase in the strategic role from 2000 and 2002 respectively (25% to 2010), which is in line with the global survey results of Ulrich et al. (2012) in particular. These trends are also supported by the results of the study by Strack et al. (2008) referring to the global context and Wilson (2010) referring to the Australian context.. A new kind of HR practitioner, business manager, and employee can be expected in successful organisations in the future who will add sustainable value by harnessing the opportunities which have been created.

Proposed strategic business recommendations are as follows:

- Business managers must be made aware of the crucial effect of effective diversity management on the bottom line of organisations.
- Change itself necessitates that business managers take cognisance of the changed business environment by highlighting the awareness and refinement of employee rights and equal employment opportunity in both New Zealand and South Africa.
- To execute business activities successfully would entail that businesses pay more attention to the work-life balance of employees in both New Zealand and South Africa due to the negative impact the global financial crisis had on these commonwealth countries.

- The approach to diversity and EEO in the two researched commonwealth countries could serve as an example to other commonwealth countries and the world in general.
- Business managers could perhaps lobby for legislative updates in both countries, as it is the domain of responsible and progressive business managers in both countries to enable and enhance business opportunities for the next century regarding the refinement of EEO and dealing with minorities and disabled employees in particular

REFERENCES

Bryson, J. & Ryan, R. (2012). *Human Resource Management in the Workplace*. Australia: Pearson. Burchell, N. (2001). 2000 to 2010. Future directions for HR in New Zealand, Presentation to the annual conference of the Human Resources Institute of New Zealand, Wellington, September.

Burchell, N. (2002). *1994 to 2010: Future directions for HR in New Zealand*. New Zealand: Unitec.

http://www/hrinz.org.nz/info/hot_stuff/conference/noel_burchell.asp Date accessed: 10 November

2011. Compton, R. 2009. Towards an Integrated Model of Strategic Human Resource Management – An Australian Case Study, *Research and Practice in Human Resource Management*, 17(2), 81-93.

Dessler, G. (2011). *Human Resource Management*. 9th ed. Boston: Pearson Education.

Du Plessis, A.J., Beaver, B., & Nel, P.S. (2006). Closing the gap between current capabilities and future requirements in human resource management in New Zealand: Some empirical evidence. *Journal of Global Business and Technology*. Spring, 2(1), 38-47.

Dowling, P., Festing, M., & Engle A. (2013). *International Human Resource Management*. (6 ed) Australia: Cengage Learning.

Ely, R. & Thomas, D. (2001). Cultural diversity at work: the effects of diversity perspectives on work group processes and outcomes. *Administrative Science Quarterly*, 46(2), 229-272.

Galang, M. C. (2008). Best practices in HRM: Convergence in beliefs across nine countries. *International Journal of Organisational Behaviour*, 13(1), 1-15.

Guthridge, M., Komm, A. B. & Lawson, E. (2008). Making talent a strategic priority. *The McKinsey Quarterly*, 1, 49-59. Haggerty, J. and Wright, P. (2009). Strong situations and firm performance: A proposed re-conceptualisation of the role of the HR function. In: A. Wilkinson, N. Bacon, T. Redman, and S. Snell, eds. *The Sage Handbook of Human Resource Management*. London: Sage.

Härtel, C. E. J. & Fujimoto, Y. (2010). *Human resource management: Transforming theory into innovative practice*. (2nd ed) Australia: Pearson Education.

Hofstede, G. (1991). *Cultures and organisations*. London, McGraw-Hill.

Holbeche, L. (2006). *Understanding change: Theory, implementation and success*. Great Britain: MPG Books Ltd.

Jones, D., Pringle, J., & Shepherd, D. (2000). Managing diversity meets Aotearoa/New Zealand. *Personnel Review*, 29(3), 364-380. Macky, K. 2008. *Managing human resources in New Zealand* (2nd ed.). Australia: McGraw-Hill.

Mthembu, M. D. (2010). Responding to 21st century dynamics. *People Dynamics*, June, 28(6), 4-5.

Nel, P.S., Werner, A., Poisat, P., Sono, T.A., Du Plessis, A.J., & Ngalo, O. (2011). *Human Resources Management*. (8th Edn). Oxford University Press: Cape Town.

- New Zealand. (1993). Human Rights Act. <http://www.hrc.co.nz> Date accessed: 10 March 2013.
- Paine, S. (2008). The emerging role of HR practitioners' expectations, challenges and trends. *MBus dissertation*, Auckland, New Zealand, Unitec Institute of Technology.
- Pretorius, O. (2010). No HR people allowed. *People Dynamics*, pp. 6–7, January.
- Republic of South Africa. (1996). *The Constitution*. Act No.108 of 1996. Government Gazette, Government Printer, Pretoria.
- Republic of South Africa. (1996). *The Labour Relations Act. No.66 of 1995*. Government Gazette, Government Printer, Pretoria.
- Republic of South Africa. *Employment Equity Act No.95 of 1998*. Government Gazette, Government Printer, Pretoria.
- Rijamampianina, R. & Carmichael, T. (2005). General issues in management: A pragmatic and holistic approach to managing diversity. *Problems and Perspectives in Management*, 1, 109-117.
- Rudman, R. (2010). *Human resources management in New Zealand* (4th Ed.). New Zealand: Prentice Hall.
- Strack, R., Dyer, A., Caye, J., Minto, A., Leicht, M., & Francoeur, F. et al. (2008). *Creating people advantage: How to address HR challenges worldwide through 2015*. USA: Boston Consulting Group: World Federation of Personnel Management Association
- Truss, C., Mankin, D., & Kelliher, C. (2012). *Strategic Human Resource Management*. UK: Oxford University Press.
- Ulrich, D, Younger, J, Brockbank, W. & Ulrich, M. (2012). *HR from the outside in*, McGraw-Hill, New York.
- Ulrich, D. & Brockbank, W. (2005). *The HR value proposition*. USA: Harvard Business School Press.
- Wilson, P. (2010). People@work/2020: Challenges and issues for Australian HR practitioners. Australian Human Resources Institute.
- Wright, C. (2008). Reinventing human resource management: Business partners, internal consultants and the limits to professionalisation. *Human Relations Journal*, 61(8), 1063-1086.

THE COMPETITIVENESS MANAGEMENT OF STRATEGIC ALLIANCES IN THE VAGUENESS CONDITIONS

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ABSTRACT

Nowadays the competitiveness management of strategic alliances in the vagueness conditions is one of the actual economic problems. The vague conditions of operating the strategic alliances are connected not only with intricate management and organization system but with clashes, resulting dissatisfaction with activity and high uncertainty of the possible terminal results. The clashes are cause of alliance disintegration at any stage of its development. They can be minimized due to preference of stable alliance interaction.

INTRODUCTION

Most researches of alliances explore limited, unrelated causes of their disintegration (I.R. MacNeil, N. Venkatraman, J.B. Heidi, B. Gray, H. Delerue). Other studies have more descriptive nature and also the have lack of theoretical justification for the results of empirical observation (B.Kogut, A. Parkh, R. Gulati, J.M. Gerindzher).

In this work we would like to offer you the model of competitiveness management of alliances in the vagueness conditions, which is allowed to eliminate the indicated lack in an explanation of strategic alliances disintegration. The model is based on the analysis of interconnected conflict sources in the view of decision-making theory in multistage processes and empirical justification of offered model.

The competitiveness of strategic alliances is based on them activity efficiency. The chief of alliance takes overall responsibility for managerial processes in the enterprise. So the chief and the main staff determine the alliance's activity efficiency. The criteria elaboration of alliances' activity efficiency is founded on the mutual and voluntary integration and the interests of alliance participants. In this case we research the integration, which is capable to realize the advantages within each enterprise. It is more expedient to apply the criteria of alliances' efficiency assessment, considering the social and economic conditions in the each part of the integrated structure.

According this situation, it's necessary to apply the factor analysis of the multi-stage processes for determining the main criteria of alliances' efficiency assessment. The criteria of alliances' activity efficiency are estimated on the main factors (criteria, which depend on the targets and conditions of the alliance's forming). They are divided on two classes: formal and substantial.

In the formal class it's analyzed the criteria, which estimates the accordance of alliance to formal requirements of process organization and to registration of created alliance. The criteria characterizes subsidiarity and loyalty to alliance, but doesn't consider the qualitative and substantial factors reflecting the alliance's productivity. The substantial class contains four criteria, which are elements of the complex of alliances' efficiency assessment. They are:

- "The process assessment" is an alliances' efficiency assessment, being constructed on the base of estimated actions. In this assessment the comparison of today's achievements and former is carried out. Then the

development of alliance and dynamics of its changes is analyzed. The criteria are estimated by employees or the chief, who is initiators of creation of alliance.

- "The purpose assessment" is an assessment, which is under construction on the base of the comparison of expected purposes achievement. For example, the assessment of knowledge acquisition, its practical applicability can be carried out on the base of expectations of the trained employee or expectations of alliance's chief.

- "The satisfaction assessment" is an assessment, which is carried out from the point of view of satisfaction by participation in process of strategic alliance.

- "The result assessment" is an assessment, which includes estimated actions of comparison economic, etc. indicators. The assessment of the reached result is carried out by the next social and economic conditions : labor productivity, expenses reduction, decrease in uncertainty and rise of development stability, decrease in risks, increase arrived, etc. [1]

These four criteria reflect options of complex of alliances' efficiency assessment:

- the satisfaction with process of strategic alliance' functioning;
- the individual importance of results for each company - participants;
- the achievement of the expected (planned) target of strategic alliance creation;
- the social and economic importance of results of strategic alliance' activity.

The different interpretation of results of strategic alliances' efficiency appears because of criteria's change during the assessment. Some chiefs of alliances carry out an assessment of efficiency, using the criteria " the social and economic importance of results of strategic alliance' activity". Others make an assessment by the criteria "the individual importance of results for each company - participants". As a result of this situation there are conflicts and decrease of the competitiveness or alliance disintegration. The criteria defined in research have important theoretical and practical value for understanding the principles, on which the assessment organizers and alliance's participants is based.

THE MODEL OF ALLIANCE STABILITY

In this work we, solving the revealed problem, identify the strategic alliance as a system of conflicts between cooperation and competition; rigidity and flexibility; short-term and long-term goals. The offered model of alliance stability recognizes that alliance as the system will develop and modify if the conflicts don't balance, but are operate (scheme 1).

Next suppositions are used to create the model of alliance stability:

- S1: The stability of strategic alliance is inversely proportional to difference between the extent of cooperation and competition in the economic process.

- S2: The stability of strategic alliance is inversely proportional to difference between the extent of rigidity and flexibility of enterprises' structures.

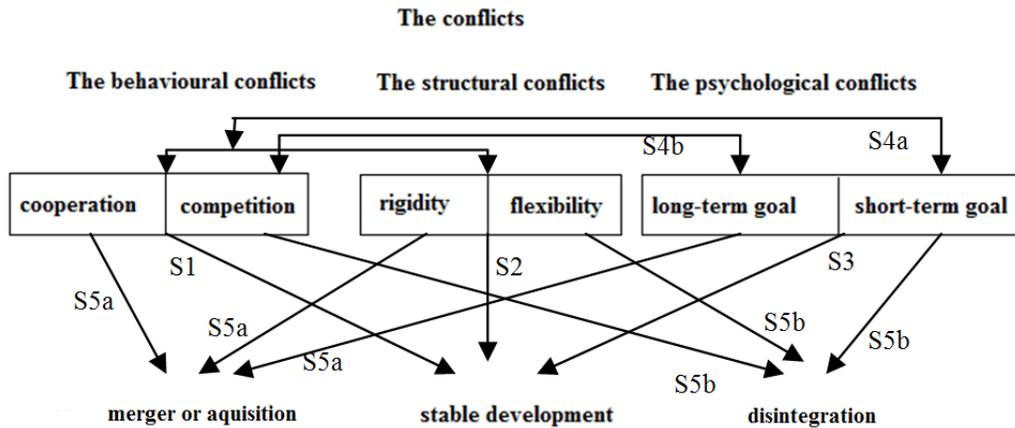
- S3: The stability of strategic alliance is inversely proportional to difference between the extent of short-term and long-term participants' orientation of economic activity.

- S4a: The extent of rigidity and cooperation as well as the extent of flexibility and competition are in positive independence in the situation when the participants have the short-term orientation in the strategic alliance.

- S4b: The extent of cooperation and rigidity as well as the extent of flexibility and competition are in negative independence in the situation when the participants have the long-term orientation in the strategic alliance.

- S5a: The alliance will move more in the direction of merger or acquisition, than in the direction of disintegration when dominate cooperation, rigidity and long-term orientation.

- S5b: The alliance will move more in the direction of disintegration than in the direction of merger or acquisition, when dominating the competition, flexibility and short-term orientation.



Scheme 1. The model of alliance stability.

The model allows choosing such interaction, which will be stable under certain conditions (character, temporary orientation and interaction structure). For example, to proceed from scheme 1, if participants focus on long-term, flexible and competitive interaction, licensing and coproduction will be the most stable forms of alliance [2].

Further we would like to indicate the forms of enterprises' interaction and the criteria of their choice. The judgments are based on results generalization of researches, which are executed for the last 15 years in the different countries (J. F. Hennart, J. Blik, D. Kent, S.H. Park, M.V. Russo, J.M.Pennings, X. Yamavaka and others).

The forms of enterprises' interaction. The short-term competition interactions are:

- the flexible interactions (short contacts);
- the rigidity interactions (joint researches and development, joint marketing).

The long-term competition interactions are:

- the flexible interactions (licensing, coproduction);
- the rigidity interactions (joint ventures, alliances with purchase of a participant's share).

The short-term cooperation interactions are:

- the flexible interactions (subsidized researches, joint distribution, assembly production);
- the rigidity interactions (joint assembly production, joint researches and development, joint marketing).

The long-term cooperation interactions are:

- the flexible interactions (local representation, franchising, licensing, coproduction, granting resources on a long-term basis);
- the rigidity interactions (joint ventures, alliances with purchase of a participant's share, subsidiaries).

The researchers are traditionally interested in the justification of a choice and result when they use these forms alliances. To a great extent the choice of form interaction are defined by its goal which limits options of relevant structures for a choice. For example, if the participants' goal is acquisition of the patented technology, the relevant types of structures will be licensing, coproduction and joint venture. If the main target is the reduction of risks and expenses at a stage of researches and development, the types will be joint researches and development, including with purchase of a participant's share. The communication between the alliance purposes and the conflicts systems is reflected in their interaction as the interaction structure is defined by its purposes.

The long-term competition and cooperation interactions are the key of sustainable strategic alliances' development. The conflicts, appearing in the course of strategic alliance's activity, are often connected with insufficient elaboration of alliance's efficiency planning. Authors offer the following sequence of decision-

making model creation in conditions of forming long-term competitive strategic alliance in the vagueness conditions.

1. It is necessary to arrange the description of mathematical model in the ambiguous situation.
2. There is need to analyze of vagueness, to understand of alliance purpose, to determine the criteria and the target function.

3. After all, it's possible to solve optimizing and other mathematical tasks.

The indicated sequence is rather conditional as each of actions closely intertwines in the course of the solution. Although the main moments of research are correspond to sequence.

It is known that any research begins with creation of mathematical model in the ambiguous situation. For this purpose it is necessary to understand specifics of process. To formulate a problem at decision-making we use language of the binary relations and criteria language of the choice description. The language of the binary relations is the general in comparison with criteria language, as it doesn't demand a numerical assessment of quality of each separately taken alternative. Criteria language is applied in that case when comparison of alternatives is reduced to comparison of numbers corresponding to them. In this situation it's possible a multiple criteria. So we can estimate the alternative, using several factors [4].

The purposes of the enterprises entering strategic alliance aren't always completely defined. Therefore at the initial stage it is necessary to use more general language to formulate the model (the language of the binary relations). To suppose, that U is the fixed target set of alliance creation for the enterprise "A". So U is the set of nonempty subsets of an alternatives set of A . The choice function (on U) is the targets of strategic alliance creation with the enterprise "C". So it's the reflection C , comparing to any set of $B \in U$ a subset of $C(B) \in B$ (i.e. a chosen subset, "the most preferable" alternatives of the purposes). In that specific case, if the ratio of target preference R is given, the choice function will be determined by equality of $C(B) = \text{Max}RB$. In this case the set of the targets $C(B)$ coincides with the total alliance's targets (a set of the maximum elements from B to ratio of R). The specified model of the strategic alliance targets is formed on the basis of the decision-making theory.

CONCLUSION

The offered approach of forming of the competitiveness management model of strategic alliances in the vagueness conditions is rather general. The criteria and the criteria functions characterize the targets only indirectly, sometimes better, sometimes worse, but it is always approximate. In this regard it is necessary to mention criteria deputies. It's criteria of target statement which indirectly characterize the degree of related target achievement. In effect, all criteria are "deputies" as nothing gives in to absolutely exact measurement.

The strategic targets of alliance creation have to correspond to economic essence of alliance dynamic developments and provide preservation of competitive advantages as the alliances as their production during their existence [3]. Irrespective of alliance development and the external market environment, the main criteria of an assessment of the alliance economic development is the increase of social and economic production efficiency and labor productivity growth. Accordance to these criteria is the base source of the formation of strategic alliance competitive advantages.

The experience of successful management of strategic alliances testifies that, first of all, successful functioning of this organization form of business demands the thorough preparation process for forming alliances, understanding of participants' strategic targets, and also definition of participants' interaction limits.

REFERENCES

Bernard G., Pier D. (2009). The strategic alliances. *Infra-M*, 381.

Depamfilic D. (2007) The merges, absorption and other ways of restructuring of the company. *Olymp- Business*, 921.

Kolobov A., Omelchenko I & Orlov A. (2008). The management of high technologies. *Ekzamen*, 621.

THE APPARENT DISJOINT BETWEEN MANAGEMENT RESEARCH AND MANAGEMENT PRACTICE

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ABSTRACT

This paper explores the apparent lack of cohesion between management practice and the scholarly, academic endeavor of management research. This gap is seemingly caused by suspicion on both sides toward the motives of the other party, which has hindered progress in both management training as well as management practice. By means of an exploratory, qualitative survey amongst management practitioners and management scholars, the study confirms that the disjoint between practice and research in management is indeed present and attributable to both parties. This situation does not bode well for management as an academic discipline, as it highlights epistemological anomalies within the discipline.

INTRODUCTION

Management as an academic discipline and further as a field of practice is relatively new (Koslowski, 2007; Stewart, 2009) with authors such as Micklethwait and Wooldridge (1996a) citing it as still being an “immature” discipline. Having evolved out of a necessity to control systems in growing corporations, management origins were based extensively on ideologies driven by few and lone voices, many of whom are either widely praised or critiqued for their supposed bias by recent researchers (Stewart, 2009).

Within other disciplines – primarily in the natural sciences – research and science influence and dictate a code of acceptable practice, to a lesser or greater degree. The same cannot be said for the relationship between management practice and management research (Grimes, 2003; Grossman, 2009, *The Economist*, 2007; Mays, 2009; Vermeulen, 2005; Wooldridge, 2011). Stewart (2009) states that management gurus – who have been identified as closely influencing management practice – write with complete indifference to or even against the outcome of scientific endeavours.

An article titled “Practically irrelevant: What is the point of research carried out in business schools?” in *The Economist* (2007), poses a thought-provoking question on whether academic research in management actually produces anything that is “useful” to the practice of business. Grossman (2009) and Vermeulen (2005:978) note that the majority of management research tends to be “strong on rigor and weak in relevance”. It is against this backdrop that this study is set, with an aim of assessing the exact nature of the gap that seemingly exists between management research and management practice.

LITERATURE REVIEW

The review of literature below will provide thematic guidance prior to the carrying out of physical research. The main themes that the literature focuses on are the current relation between management research and management practice, the factors that contribute to the disjoint between research and practice in management and finally possible avenues that can be used to bridge this gap.

The relationship between management research and management practice

Pfeffer and Fong (2002) state that there is minimal evidence to show that management research influences practice. Grossman (2009), attests to an incontestable gap between scholarly research and what is on-going in the world of management practice, a gap that Mays (2009) terms unhealthy. This notion of a 'gap' is further driven by researchers whose findings consistently indicate a lack of alignment in management education programs with what the industry or mainstream management practice requires (David & David, 2011; Jackson, 2009; Navarro, 2008; Pfeffer & Fong, 2002). Marrington and Rowe (2004) suggest that it is perhaps because management cannot in fact be taught save for the intellectual component as it needs to be experienced in a social context for it to be useful. Further studies conducted showed a different emphasis in what the organisations expected of their managers (practical management) compared to the focus on specialist knowledge and theories by management researchers (Blood, 2006, cited in Goldman, 2008; Phillips & Zuber-Skerrit, 1993). Goldman (2008) argues that although the use of case studies and hypothetical situations is prevalent, this is not sufficient to get students of management prepared for actual management practice and thus a potential 'set up for failure' occurs – further adding to the distaste that organisations have toward management research and its preparation of managers. Providing an example of this, Jackson (2009), notes that Australian business graduates are being deemed 'unready' by the industry based on their supposed lack of skills to apply the management knowledge they have acquired in a way that would add value to the workplace.

Despite this, a large number of professors cited in *The Economist* (2007) argue that management research should remain written with other academics in mind – a view that most certainly emphasises the presence of a disjoint – and in further argument propose that it is the role of management consultants, MBA and other “non-executive” programs to translate this research for management practitioners (Bailey & Ford, 1996:8, cited in Pfeffer & Fong, 2002; Fitzgerald, 2003:16). Efforts to streamline management practices in the EU, however, have seen an attempt to unify management research, management consultancies, media and research from academic institutions. A review of historical ideologies that gave rise to the predominant management practices was seen to have stemmed from management research, although more recently, a rise in the number of management consultancies has provoked a need to streamline populist ideologies that have been criticized for their seemingly irrational approach to management practices (European Commission report, 2001). This development in the EU suggests hope for the relation between management practice and management research.

The disjoint between management practice and management research

Pfeffer and Fong (2002) attest that this gap is attributable to the structure of business schools, focused primarily on analytics, with insufficient emphasis on problem finding as contrasted with problem solving and implementation. The pre-set agenda in business schools, in a quest to streamline management with other social-science departments as well as maintain commercial success, has led to an imbalance in the relevance of their educational products and questionable impact on management practice as whole, that requires a more integrative, pro-active and human-based approach (Huff & Huff, 2001; Li, 2009; Pfeffer & Fong, 2002). Phillips and Zuber-Skerrit (1993) as well as Grossman (2009) purport that most management practitioners deem management research as irrelevant, too theoretical and rarely falling under their 'need-to-know' priority. Thomas (2006) suggests that the management profession needs to be linked to knowledge-generation, whether internally or via strategic links and alliances to those who generate knowledge thus, suggesting that the onus is on the organisation to find the relevant research for their benefit. A key contributing factor to this gap and perception of irrelevant management research could in fact be the nature of management research itself (*The Economist*, 2007). Gaddis (2000) According to the Dean of a New York Graduate Business School, management research is largely fuzzy, irrelevant, and pretentious (Gaddis, 2000). Grossman (2009) contests that management research carried out by academics, in addition to expanding the knowledge boundaries, is primarily conducted to cement the careers of academics, as promotions, salaries and additional funding are based on their publications. This system seemingly encourages highly quantitative, hypothesis-driven, and esoteric research that is largely unread by management practitioners (Garman, 2011, *The Economist*, 2007). In addition, the perceived irrelevance of management research seems also to stem from the difficulty in gaining access to organisations as businesses are overly concerned with losing credible information or preserving their knowledge in their people. Researchers often get little or no cooperation from organisations, which discourages organisation-based research which could have practical value (Starkey & Madan, 2001). The problem does not necessarily stem from the content of the research, but the positioning of the research in the broader landscape of practitioners, consultants and other

actors who translate new knowledge into organisational and management-specific practice. Research is too often kept within the spheres of other researchers and thus has little opportunity to impact management practice (Mohrman & Lawler, 2010).

The motives, tasks and direction taken by practitioners and researchers with respect to business and management differ greatly, as well as what constitutes success in each of these realms (Mohrman & Lawler, 2010; Grossman, 2009, Starkey & Madan, 2001). Few managers have a background in management research or scientific inquiry, and even when they do advances in research are rarely rewarded in the organisation as opposed to outcomes and provision of solutions to current problems. Rousseau (2006) suggests that this in turn discourages management practitioners to take an active interest in conducting or being involved in management research. The lack of concrete solutions offered by management research in turn present no clear cut solution that management practitioners can appreciate and therefore they choose to stay away from it (Mohrman & Lawler, 2010). Stewart (2009) cites management guru supporters who argue that the writings of the management gurus are not necessarily scientifically rigorous, but they provide practical techniques and guidelines for practitioners to follow. The extensive amount of research on gurus supports their inclusion among the factors contributing to the disjoint between practitioners and researcher in management. This is justified by research proposing that the place set for management gurus is based on their ability to communicate in an understandable language to management practitioners (Bos, 2000) and persuasively sell their seemingly new ideologies and images (Anderson, 1998, cited in Wilkerson, 1999; Bolino, 1999, cited in Bos & Heusinkveld, 2007; Greatbatch & Clark, 2005). At the end of the day, three key areas need to be addressed in order to bridge the gap between research and practice (Garman, 2011; Starkey & Madan, 2001; Hodgkinson, Herriot & Anderson, 2001):

- The framing of research questions to ensure their usefulness to practitioners,
- translation of findings into practical guidelines and recommendations, and
- Turn these recommendations into actual changes in the workplace.

These aspects can help in demonstrating the contribution of scholarly research toward the organisations knowledge base and knowledge capacity

Following from the aim of the research, outlined earlier in this paper, and with cognisance of the points of view deliberated upon in this literature review, the following research question can be posed:

What is the relationship between current management practices and management research (primarily academia)?

METHODOLOGY EMPLOYED

This study adopted an exploratory qualitative research approach. As the primary aim of qualitative research is in-depth descriptions and understanding of actions and events (Mouton, 2011) it was deemed the approach best suited to the aim of this research, which is to understand the apparent disjoint between management research and management practice. Additionally, the use of qualitative methods allows for the consideration of people's experiences and opinions (Eisenhardt & Graebner, 2007; Graebner, Martin & Roundy, 2012), aspects crucial to the study.

As with most qualitative studies, a non-probability sampling frame utilising purposive sampling was employed in order to solicit feedback specifically from management scholars and management practitioners on the gap between research and practice. Purposive sampling assists in transferability of the research, which in turn boosts the trustworthiness of the research findings (Guba & Lincoln, 1984, cited in Mouton, 2011). The research population constituted academics and people occupying a managerial position. The sample consisted of 6 research participants, three academics and three managers, selected according to the following criteria:

- Academics: Must have a track record of management research; must have been practical management practice experience, and must to be lecturing management subjects at present.
- Managers: Must currently occupy a clear managerial position, and must have a track record in a managerial role of at least three years.

As data gathering mechanism, semi-structured individual interviews were conducted with the research participants. This collection method was selected because the information sought is based on individual experiences and required the research participants' insight, thoughts and experiences. This would allow for

patterns to be identified across the sample with no influence from other research participants, which might not be the case with focus groups. The interviews were guided by the key themes identified in the literature review. In this instance, the interviewer established a general direction for the conversation and without a specific set of worded and ordered questions; the research participant was able to speak for most of the time (Mouton, 2011). Interviews were recorded digitally. Additionally, hand-written notes were taken during the interview and reflections carried out post-interview.

The data were analysed using a process of content analysis. According to Hancock (2007), content analysis is a procedure for the categorisation of verbal data for the purposes of classification, summarization and tabulation. This process involves coding and classifying data and for this research, the latent level of analysis was used. This analysis process is used at the interpretative level that goes beyond the responses themselves to identify what was implied and inferred by the respondents in addition to basic descriptive analysis within the various themes. Following the analysis and presentation of findings, the researcher consulted with the respondents to ensure true meaning and content was captured as intended by the respondents.

PRESENTATION AND DISCUSSION OF FINDINGS

The findings presented and discussed below are divided into two main sections: findings from the management researchers and those from management practitioners. This is done as a way to distinguish the contributing factors generated as aimed for in the secondary research questions.

Findings pertaining to management research

i – Reluctance of organisations to implement management research: According to the management researchers, a major contributor to this gap from their experiences is the reluctance of organisations to implement new or modified management practices that emanated from research conducted in organisations. This was perplexing as, in these instances; the organisations took the initiative and sought aid from management researchers to investigate particular issues. The research subjects further reported that if the problem was seen as ‘not too drastic’, the research would be shelved. The following extracts from the interviews attest to this:

One research subject remarked that when it came to organisational change practices approximately 98% of the organisations he conducted research at have implemented suggestions research brought to light, as the following comment bears witness to:

Also, one research subject commented that when it came to HR issues, the companies she conducted research at often implemented her suggestions, as can be seen from the the following comment:

ii – Not enough incentive to streamline research to management practice: According to the management researchers interviewed, there are few, if any incentives given to them by research institutions and companies alike in terms of linking their research to actual management practice. A research subject commented as follows on the issue:

Two of the researchers admitted that they conducted “contract” research (research solicited by a company to find solutions to a particular problem) in an effort to boost income in addition to the research they had to conduct for the purposes of getting published in recognised, academic journals as part of their jobs.

iii – Management education not adequately preparing future practitioners: All the research subjects who are management researchers (and also business management lecturers) felt that the syllabus that had to be presented to the students was not always practical and hence did not reflect a true sense of what they would expect in today’s organisations, as the following interview extracts suggest:

Following further probing from the interviewer however, the research subjects added that they did not feel that the use of case studies always demonstrated the bridging of the gap for the students since the assessment criteria usually reflected how well students were able to systematically apply theory to the case study scenarios as opposed to holistic and critical thinking [that is necessary for management practice] that they noted is only usually taught in postgraduate studies.

iv – Gurus’ works are accessible: Research subjects exhibited mixed feelings regarding gurus, as keen be seen from the following interview extracts:

However, all of these research subjects agreed with the fact that a likely factor that contributes to their [gurus] popularity is the simple and accessible way their work is presented, an edge that management research does not seem to be seeking as can be seen from the following excerpts:

Findings pertaining to management practice

i – Perceived irrelevance of management research: This finding was broken down into two subsections:

- **Evaluations and job specifications not related to knowledge of management research:** Research subjects who are management practitioners seemed averse to the idea of keeping up with management research or working together with universities, as the following comments suggest:
- **No perceived difference between the work of academics and management gurus:** Interestingly the practitioner research subjects could not distinguish between the work of academics and the work of management gurus. All these research subjects commented that they were under the impression that gurus' work was academically sound and hence it meant that it was good enough for them to be up-to-date with those books, as the following comments suggest:

Some research subjects expanded on what they enjoyed most about the 'guru' books: These responses indicate a definite relationship between the management practitioners and the gurus' writings with justification from their readers whose responses read more like those of religious followers.

CONCLUSIONS

The findings presented in the preceding section confirmed the notion of a gap in regard to management practice and management research as outlined in the problem statement. Furthermore in the quest to address the research objective and answer the research question, various contributing factors were brought to light from the respondents' feedback.

The lack of incentives came out as a common contributor to both researchers and practitioners in management. Both sides cited the absence of extrinsic motivators as being a reason for their indifference in seeking partnerships with the other and actively moving to close this gap. This was further compounded by the fact that following some management researchers' partnerships with organisations, a resultant lack of implementation of the findings of the research (for various reasons) acted to de-motivate them from participating in similar future projects save for the monetary benefits.

Contrastingly however, the findings also indicated an interesting relationship between the 'subject specific' nature of the management research as well as the level of to which it was perceived to be critical to the organisation and the corresponding likelihood of its acceptance by management practitioners and organisations. Thus areas like 'change management' and 'human resource management' research in this instance were more likely to be assimilated by the organisation than general improvement of management practice research.

With regard to the gurus, the interviewed management researchers were a lot more understanding about the gurus' positioning than the researcher initially anticipated. This was reflected in a unanimous agreement by the respondents that the reason the gurus were more endearing to the management practitioners was largely due to the accessibility of the gurus' writings in comparison to the research published by the researchers. Management practitioners on the other hand, somewhat oblivious to this accessibility debate, firstly did not see a reason to doubt gurus' works based on credibility and secondly favoured these writings due to their self-help focus as well as clear and simple writing, a compliment rarely provided to management research (Grossman, 2009).

Lastly, a critical point that was raised by some of the management researchers was that management education was not adequately preparing management students with regards to practical managerial tools. Thus resulting in a the feeling that although the gap currently exists, more fuel is being added to the fire by not properly using this opportunity to demonstrate the usefulness of management education by creating more rounded and capable management practitioners through training in management education.

RECOMMENDATIONS AND MANAGERIAL IMPLICATIONS

Stemming from the research findings as well as in response to the 3rd secondary research objective outlined for this study, various recommendations can be made in moving forward toward a streamlining and bridging of this management practice-research gap:

- Based on the finding that management practitioners in many instances took the cue regarding what was important in their jobs from their evaluation criteria and explicit job requirements, and of which knowledge of management theory was not necessarily a part, organisations need to actively work toward facilitating the bridging of this gap through work descriptive dimensions. Such dimensions and actions can include the provision of job performance and reward evaluations, or stressing of recruitment criteria related to having some component of understanding, linking and knowledge of recent management research. Furthermore organisations can incorporate research elements or departments into the organisation which would imply less direct pressure on the individual manager to do this research and rather enhance accessibility of the research to the manager who can now be able to incorporate it into his/her work.
- Secondly the approach to management publications and writing technique needs to be re-evaluated in pursuit of a more accessible platform for management practitioners thus easing the tensions and finger-pointing between gurus, practitioners and researchers in management. Furthermore, a diversification in the publication spheres of management researchers into more contemporary avenues such as physical and electronic bookstores could see great strides made in terms of management practitioners being able to evaluate credible sources and keep up with management research as well as providing the researchers with much needed feedback from mainstream management on the perceived relevance of their work.
- Lastly, management educationists should consider incorporating a more practical, hands-on approach to management education and thus giving their students a more realistic feel for the corporate environment. A large contributor to this practical side could also be the use of management practitioners in management education as they are able to bring their experiences to the students using practical, relevant examples. This would work in preparing well-rounded practitioners who would be able to add tangible value to organisations thus re-enforcing the notion that management education and research could in actual fact be a source of competitive advantage to an organisation.

LIMITATIONS AND AVENUES FOR FURTHER RESEARCH

A key future research area that stems from this research is particularly in the direction of incentivizing the bridging of the gap between management research and management practice. A strategic approach needs to be taken on this research as well as the proposed incentives to avoid cyclical appearances of the gap which would be the case if a long-term orientation on sustainable incentives is lacking.

The biggest limitation of this research is the small sample size, as only six research subjects were used for this study. However, as a point of departure, the research already presents some commonalities in both academics and practitioners conception of the theory-praxis gap. Although this is extremely insightful in itself, it should be expounded upon in future studies of this nature

REFERENCES

Babbie, E and Mouton, J. 2004. *The practice of social research*. Cape Town: Oxford University Press.

Bloom, N; Genakos, C; Sadun, R and Reenen, J. 2011. *Management practices across firms and countries. Harvard Business School Working Paper Series*.

Bos, R. 2000. *Fashion and utopia in management thinking*. Philadelphia: John Benjamins.

Bos, R. & Heusinkveld, S. 2007. The guru's gusto: management fashion, performance and taste. *Journal of Organisational Change*, 20(3):304-325.

- David, FR and David, FR. 2011. Comparing management curricula with management practice. *Academy of Management Journal*, 76(3):48-55.
- Donkin, R. 2002. Falling prey to the US management guru. *Financial Times*, 24 October 2002: 14.
- Eisenhardt, KM and Graebner, ME. 2007. Theory building from cases: opportunities and challenges. *Academy of Management Journal*, 50(1):25-32.
- European Commission. 2001. The creation of European management practice. *EU Socio-economic research: Final report*.
- Fitzgerald, B. 2003. Informing each other: Bridging the gap between researcher and practitioners. *Informing Science*, 6(2):13-19.
- Gaddis, PO. 2000. Business schools: Fighting the enemy within. *Strategy and Business*, 21(4):51-57.
- Garman, AN. 2011. Shooting for the moon: How academics can make management research even less irrelevant. *Journal of Business and Psychology*, 26:129-133.
- Goldman, EF. 2008. Integrating work experiences into teaching. *Journal of Strategy and Management*, 1(1):93-110.
- Graebner, ME, Martin, JA and Roundy, PT. 2012. Qualitative data: cooking without a recipe. *Strategic Organization*, 10(3):276-284.
- Greatbatch, D and Clark, T. 2005. Management speak: Why we listen to what management gurus tell us. London: Routledge.
- Grimes, A. 2003. Business performance management analytics: The future of business intelligence? Presentation at the Data Management Association National Capital Region.
- Grossman, RJ. 2009. Close the gap between research and practice. *HR Magazine*, 54(11):31-37.
- Hancock, B. 2002. An introduction to qualitative research. Nottingham: University of Nottingham.
- Hodgkinson, GP, Herriot, P and Anderson, N. 2001. Realigning the stakeholders in management research: Lessons from industrial, work and organizational psychology. *British Journal of Management*, 12(Special Issue):S41-S48.
- Huff, AS and Huff, JO. 2001. Refocusing the business school agenda. *British Journal of Management*, 12(1):S49-S54.
- Jackson, D. 2009. Undergraduate management education: Its place, purpose and efforts to bridge the skills gap. *Journal of Management and Organization*, 15 (3):206-223.
- Li, X. 2009. The management academia: A naked carnival. *Copenhagen Business School*, Working paper xl-01-2009.
- Marrington, P and Rowe, J. 2004. The usefulness of management education: what has the university done for us? *Management Decision*, 42(3/4):454-463.
- Mays, KW. 2009. The role of undergraduate management education in bridging the theory-application gap: A quantitative and qualitative analysis. DBA Dissertation. Anderson: Falls School of Business.
- Micklethwait, J and Woolridge, A. 1996. Witch doctors: making sense of the management gurus. New York: Times Books.

- Mohrman, SA and Lawler, EE. 2010. *Research for Theory and Practice: Framing the challenge*. San Francisco: Berret-Koehler.
- Navarro, P. 2008. The MBA core curricular of top-ranked U.S business schools: A study in failure? *Academy of Management Learning and Education*, 7(1):108-123.
- Pfeffer, J and Fong, CT. 2002. The end of business schools? Less success than meets the eye. *Academy of Management Learning and Education*, 1(1), online. Accessed 5 June 2012 from www.aomonline.org/Publications/Articles/BSchools.asp
- Phillips, E and Zuber-Skerrit, O. 1993. Perceptions of potential employers of the research training needs of postgraduates. *Journal of Management Development*, 12(5):12-20.
- Rousseau, DM. 2006. Is there such a thing as 'evidence-based management'? *Academy of Management Review*, 31(2):256-269.
- Starkey, K and Madan, P. 2001. Bridging the relevance gap: Aligning stakeholders in the future of management research. *British Journal of Management*, 12(Special Issue):S3-S26.
- Stewart, M. 2009. *The management myth*. New York: W.W. Corton & Co.
- Thomas, M. 2006. Management: a profession in theory. *Management Decision*, 44(3):309-315.
- The Economist. 2007. Practically irrelevant: What is the point of research carried out in business schools? Accessed 5 June 2012 from www.economist.com/node/9707498?subjectid=2133650&story_id=9707498
- Vermeulen, F. 2005. On rigor and relevance: Fostering dialectic progress in management research. *Academy of Management Journal*, 48(6):978-982.
- Weick, KE. 2001. Gapping the relevance bridge: Fashions meet fundamentals in management research. *British Journal of Management*, 12(Special Issue):S71-S75.
- Wilkerson, JM. 1999. On research relevance, professors 'real world experience', and management development: are we closing the gap? *Journal of Management Development*, 18(7):598-613.
- Wooldridge, A. 2011. *Masters of management: How the business gurus and their ideas have changed the world – for better and for worse*. New York: Harper Business.

HEALTH RISKS ASSOCIATED WITH POLLUTANTS FROM COAL MINING AND COMBUSTION IN THE VICINITY OF SCHOOLS

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ABSTRACT

Coal mining activities have been reported as one of the causes of environmental pollution in many nations of the world and have also resulted in various adverse health effects. This study aimed at assessing the levels of pollutants in air and drinking water and how they may affect the health of school learners in the vicinity of coal mines in the town of eMalahleni, Mpumalanga province of South Africa. For air pollutants, samples were collected from both inside and outside the classrooms in five different schools. This was done by using Radiello® samplers to determine the presence of Sulphur dioxide (SO₂), Nitrogen dioxide (NO₂) and Ozone (O₃) and filter pumps to determine the presence of Lead (Pb). Water samples were taken from drinking tap of two of the five selected secondary schools in this town to determine the presence of Lead (Pb), Nickel (Ni), Arsenic (As) and Mercury (Hg). All these parameters for both air and water were analyzed using different analytical methods. The results were compared with the recommended guidelines by South African National Standard (SANS). The result of air analysis revealed that the pollutants SO₂, NO₂, O₃ and Pb were present in vicinity of schools at various levels. The result for water indicated that most of the tested parameters in the tap water from the schools were at acceptable levels with the exception of lead (Pb) which was found to be at the threshold limit of SANS recommendation for drinking water. The presence of some of these pollutants at significant levels should be a cause for concern. It is therefore recommended that appropriate measures should be taken by the school management to safeguard their health.

INTRODUCTION

Our world environment is threatened by all sorts of environmental problems. This is as a result of industrialization which has ultimately led to urbanization. Urbanization has meant that there has been great movement from rural areas especially in Africa to areas where industries and thereby employment is. Unfortunately this unprecedented movement of people has led to a serious strain on the environment. The strain is due to human activities and needs which play a contributory role in environmental pollution. Environmental pollution is persistently and adversely affecting the quality of air and water supplies. The problems caused by pollution have resulted in global warming and climate change throughout the world. People living around industries are vulnerable to the effects of whatever pollutants are released. For example, in the gold mining industry surface water is affected by the chemicals used and problems of acid mine water are experienced. In this regard, it is argued in fact that when "... mine waters are discharged into streams, lakes, and the oceans, serious degradation of water quality and injury to aquatic life can ensue ..." (Nordstrom, 2011, p. 393). Another example may be seen from the Chernobyl nuclear power plant where a disaster still affects humans and the environment (Dubrova *et al.*, 1997). Environmental pollution is reported to be worse in developing countries due to lack of investment in modern technology, poverty, lack of basic sanitation and weak environmental legislation (Briggs, 2003).

The main cause of global warming and climate change is the processing of fossil fuels such as crude oil, natural gas and coal. Coal is the world's most abundant and an important energy source particularly in power generation. In fact it is estimated that there is about 1000 billion tonnes of coal reserves in countries such as the USA, Russia, South Africa, China and India (World Coal Association, 2012).

LITERATURE REVIEW

While coal is a source of energy it is also one of the largest sources of pollution to the environment. These effects result from the different stages of coal processing such as mining, transportation and combustion. In essence, the exploitation of coal results in pollution that affects the air, water and soil (Kearting, 2001). The demand for coal has grown rapidly over the last decade, outgrowing that for gas, oil, and other energy sources. An example of the dependence on coal for electricity generation may be illustrated by: South Africa (93%), Poland (92%), China (79%), India (69%) and the United States (49%) [Burnard & Bhattacharya, 2011]. Over the years, research studies have indicated that increased mining and combustion of fossil fuel such as coal for electricity generation in most countries is majorly responsible for environmental pollution (Kampa & Carstanas, 2008). Among all the fossil fuels, coal accounts for 40% of global electricity generated from coal-fired power plants (Burnard & Bhattacharya, 2011). Coal and its combustion contribute the largest percentage to global anthropomorphic emissions of greenhouse gases such as carbon dioxide (CO₂) (Burnard & Bhattacharya, 2011; Moore, Stanitski, & Jurs, 2008).

South Africa is the world's third largest coal exporting country, exporting 25% of its production internationally while it uses 53% of the balance on electricity generation, 33% for petrochemical industries (Sasol), 12% for metallurgical industries (ArcelorMittal) and 2% for domestic heating and cooking (Coal mining in South Africa, 2012). However, this results in emission of 170 million tons of carbon dioxide, about 0.7 million tons of nitrogen oxides and about 1.5 million tons of sulphur oxides into the environment annually (Lloyd, 2002). In fact a major problem with coal mining and processing is that it releases pollutants which affect the people, the environment as well as farming in particular. For example, Mpumalanga farmers have lamented water pollution from mining and they have pointed out that this may result in a national food crisis (Craven, 2012).

Pollutants and their Health Implications.

Apart from carbon monoxide (CO) and carbon dioxide CO₂, coal contains pollutants that are released into the environment thereby causing air and water pollution which invariably affect human health and the general ecosystem (Sabbioni, Goetz & Bignoli, 1984). Examples of these pollutants are: Ozone (O₃), Sulphur dioxide (SO₂), Nitrogen dioxide (NO₂), cadmium (Cd), arsenic (As) and lead (Pb). It has long been shown that children all over the world are one segment of society that is confronted with environmental problems (Bakshi & Naveh, 1980). To this day it is still argued that children are confronted with environmental hazards and are especially vulnerable to toxic effects than adults (Abbas & Alghobashy, 2012). An implication of health problems due to pollutants is identified as the major reason for absenteeism among American school children (Meng, Babey, & Wolstein, 2012; Taylor & Newachek, 1992; Weitzman, 1982). In England too the aggravation of chronic respiratory symptoms has been linked to exposure to pollutants (Chauhan, & Johnston, 2003). Similarly, in South Africa, it is reported that children are victims of pollution and this invariably happens within their homes and schools (Mathee, 2003).

Several studies have indicated that exposure to these pollutants may be associated with serious diseases such as increased respiratory symptoms, reduced lung function, nervous system damage in children, cardiovascular diseases, cancers of various forms and increased number of deaths (Brunekreef & Holgate, 2002; Dockery & Pope III, 2002; Stieb, Judek & Burnett, 2002; Okonkwo, Salia, Lwenje, Mtetwa & Shilongonyane, 2001). Agency for Toxic Substances and Diseases Registry (2002) reports that people who are near combustion sources such as coal fired plants may be exposed to higher levels of these pollutants. A study conducted in Taiwan on exposure to Arsenic (As) among children in schools located around coal fired plants revealed that exposure to this carcinogenic metal may contribute to DNA damage, asthma and allergic rhinitis in children (Malcoe, Lynch, Keger & Skaggs) Also, prolonged exposure to As in drinking water is reported to affect academic performance of school children (Wasserman et al. 2004). About O₃, It is reported that exposure to this element is a major cause of absenteeism among school children in Southern California communities where about 83 percent experience upper respiratory illnesses (Gilliland *et al.*, 2001). Studies conducted in various places have also reported that exposure to Pb affect children's IQ levels (Heinze, Gross, Stehle & Dillon, 1998; Schutz *et al.*, 1997; Schwartz, 1994; Malcoe, Lynch, Keger, & Skaggs, 2002). Similarly in Japan, school children exposed to NO₂ were also found to have suffered from respiratory illnesses (Shima & Adachi, 2000). Studies on

school going children have also reported an association between exposure to SO₂ and illnesses resulting in absenteeism in Korea (Park, Lee, Ha, Lee, Kim & Hong, 2002) and in Europe (Sunyer *et al.*, 2003).

METHOD

Research Site

This study was conducted in a town called Emalahleni situated on the Highveld of Mpumalanga Province of South Africa. Emalahleni formerly known as Witbank means a place of coal. Emalahleni is a coal mining town that also supplies the coal to adjacent power stations for electricity generation. Also there are a number of smelting companies around the mines that use the coal in the foundries. The effect of the mining and combustion in the area is the release of coal related gasses into this environment. This study was motivated by conversations held with schools' principals and residents in this vicinity. A conversation with one of the selected schools' principals revealed that there were approximately 15 mines in the general vicinity of her school (Personal communication, March, 2011). In fact, conversations with a number of the town's residents revealed that almost every evening one would notice smog emanating from the mines and combustion industries (Personal communication, September 15, 2010).

In a conversation with another school principal in eMalahleni, she intimated "... children and everybody sometimes bath and drink water that is contaminated ... many as a result of constant health problems are being hospitalized from time to time apparently without realising that their health issues may be linked to the pollution in this area" (Personal communication, September 15, 2010). Another conversation with a different principal revealed that pollutants from the mines, foundries and the power generating plants were affecting the schools (Personal communication, January 11, 2011). When asked in what way, he indicated that learners who fall under the harsh effects of pollution usually perform poorly. This, he felt may be as a result of prolonged exposure to pollutants that resulted in illnesses and "undue absence from school." He further pointed out that these problems are not limited to learners but affect teachers too. One important issue the principal suggested was to investigate what pollutants could be affecting all those in the vicinity of the school.

Sampling of Schools

There are about twenty five schools in this local municipality. In selecting the sample, the researcher contacted the local department of education who indicated that schools that were within the coal mining precinct would be the most appropriate to choose. In selecting the schools each school's name was given a unique number written in a piece of paper. The papers were put in a hat and five schools were drawn. When the schools were selected, the researcher approached the principal in each school to explain what she wanted to do. In order to maintain the anonymity of the schools, these were identified as School A, School B, School C, School D and School E.

Collection of Samples

There are three major forms of environmental pollution identified in literature. The main is air pollution which is followed by water pollution (Gambhir, Kapoor, Nirola, Sohi, & Bansal, 2012). The third is about land or soil pollution, which may be as a result of radioactive material, plastics thrown away or oil spillage (Nathanson, 2012). For the purposes of this study only air and water pollution are considered.

Firstly, air samples from both inside and outside the classrooms in all the five schools (A,B,C,D,E) were collected. Secondly water samples were collected from taps in only two schools (B and D) in the study area. Air samples were collected using Radiello ® samplers. The aim of collecting air samples was twofold. Firstly, we sought to determine whether known pollutants resulting from coal related activities would be found in the air in and around the schools. The pollutants produced from coal mining processes are compounds such as NO₂, SO₂, O₃, and Pb. The determination for pollutants was based on the fact that the schools were in the proximity of the coal mines and the allied industries such as electricity generating plants. Also, this determination was influenced by the 2005 WHO Air Quality Guidelines (AQGs) designed to offer global guidance on reducing the health impact of air pollution (WHO, 2005; 2011). This was because major sources of

(a) anthropogenic emissions of NO₂ among others are identified as combustion processes; (b) SO₂ involve the burning of fossil fuels such as coal and (c) O₃ are photochemical smog that is formed by the reaction of sunlight (photochemical reaction) with pollutants such as nitrogen oxides (ibid.).

Specifically, Radiello cartridges measuring the presence of NO₂, SO₂, O₃, and a filter measuring the presence of Pb was used. Secondly we wanted to establish the levels or densities of each of the identified compounds in the air within the vicinity of the participating schools. For the collection of the air samples all the five selected schools participated. Four samplers were put in each school. Two samplers were put inside the classrooms and two were put outside the classrooms (in the school premises). One sampler was used to collect both NO₂, and SO₂. The other sampler was used to collect only O₃.

The first setting up of equipment and sample collection for NO₂, SO₂, and O₃ commenced on June 5, 2012. The O₃ samples were taken away after 7 days (on June 12) for analysis. Two weeks was allocated for the sampling of NO₂ and SO₂. So for these two compounds the collection period was June 05 – June 19, 2012. To collect Pb sampling pumps with filters were used to collect this air pollutant over a period of 7 days (June 12 - June 19 2012). In this instance, two sampling pumps were put in two schools, School C and School E. The pumps were connected to an electricity power source and the filters were fixed in the mouth of each pump. The filters were then used to collect air particulates from the school environment. On collection of the equipment at School E on the 7th day, it was noticeable that the pump had been touched or tempered with. The equipment at School C however was intact. Drinking water samples were collected from taps of two schools, School B and School D. To collect the water samples, bottles ranging in volume from 250 ml to 1L were used

Analysis of Samples

In all, ten Radiello cartridges were collected for the determination of NO₂ and SO₂. Also, ten cartridges were collected for the determination of O₃. Meanwhile, one filter was collected for the analysis of Pb. In analysing for the presence of NO₂ and SO₂, initially extraction of the cartridges was performed with diluted hydrogen peroxide (H₂O₂). The main analysis after the extraction involved the use of ion chromatography. O₃ was determined by spectrophotometric analysis according to the method published by Radiello ®. Finally, to test for the presence of Pb the exposed filter was initially subjected to acid digestion. Following this, Pb was determined by graphite furnace atomic absorption spectroscopy. In analysing the water samples, bottles containing samples were collected for determination of chemical elements which involved Lead, Nickel Arsenic, and Mercury. For the analysis, different methods were used. Examples included inductively coupled plasma atomic (ICP) and Cold vapour generation. The analysis of the air and water samples was commissioned to the Centre for Scientific and Industrial Research (CSIR), Pretoria, South Africa.

RESULTS

Results of Air Analysis

Before presenting the result of the air analysis, it is perhaps prudent to highlight South Africa's acceptable levels of the pollutants reported in this study. Table 1 shows the national ambient air quality standards for NO₂, SO₂, O₃ and Pb proposed by the Department of Environmental Affairs (2004).

Table 1: National ambient air quality standards for NO₂, SO₂, O₃ and Pb[§]

	Averaging period	Density
NO ₂	1 hour	200 µg/m ³
	1 year	40 µg/m ³
SO ₂	10 Minutes	500 µg/m ³
	1 hour	350 µg/m ³
	24 hours	125 µg/m ³

O₃	1 year	50 µg/m ³
	8 hours	120 µg/m ³
Pb	1 year	0.5 µg/m ³

§ adapted from Department of Environmental Affairs, RSA (2004)

For all intents and purposes it should be explained that it is difficult to argue for the actual benchmarking with the national ambient air quality standards (Department of Environmental Affairs, 2004) and the (WHO, 2011) values as the averaging periods differed. All one can do is to extrapolate however a disadvantage of doing that would be speculative in nature. The compounds found in the air were NO₂, SO₂, and O₃. In presenting the results, all the calculations in respect of the determination of NO₂, SO₂, and O₃ were based on an average ambient temperature that was obtained from the South African Weather Service. Table 2 shows the densities depicting the presence of NO₂, SO₂, and O₃ in the air in the vicinity of the schools. The values were provided here to give a better picture of how the pollutants may affect teaching and learning in schools.

Table 2: Densities of NO₂, SO₂, and O₃ measured inside and outside the classrooms in each school

School	Location	Sample ID	NO ₂ (µg/m ³)	SO ₂	O ₃
School A	Inside	O-12-1680	19	4.8	40
School B		O-12-1691	20	3.0	10
School C		O-12-1693	20	6.0	30
School D		O-12-1695	26	38	26
School E		O-12-1697	28	8.8	018
School A	Outside	O-12-1690	9.9	17	110
School B		O-12-1692	24	20	82
School C		O-12-1694	19	17	110
School D		O-12-1696	24	84	66
School E		O-12-1698	27	31	75

It is observable from the table that the density of NO₂ inside the classrooms ranged between 19 (µg/m³) and 28 (µg/m³) while outside the classroom the range was 9.9 (µg/m³) – 27 (µg/m³). In fact, the results show that the NO₂ density inside and outside the classrooms was relatively constant. The (WHO, 2011) recommended exposure values to NO₂ at a rate of 40 µg/m³ on an annual mean and 200 µg/m³ on a 10-minute mean. As a clarification, an x-hour mean is calculated every hour, and averages the values for x hours. So a 10-minute mean entails exposure to the indicated amount of 200 µg/m³ in 10 minutes. These result shows that learners in this study were exposed to relatively low levels of NO₂ both inside and outside the classrooms (see Table 2).

In terms of SO₂ the density inside the classroom ranged between 3.0 (µg/m³) and 38 (µg/m³) while outside the classrooms the range was from 17 (µg/m³) to 84 (µg/m³). These results indicate that the amounts of SO₂ were extremely high inside School D's classrooms. The recommended exposure values to SO₂ at a rate of 20 µg/m³ on a 24-hour mean and 500 µg/m³ on a 10-minute mean (WHO, 2011). It is evident that SO₂ levels inside the classrooms of the other schools were well below the recommended levels. Outside the classrooms however the levels were at the threshold limit for School B while they were high for School E and School D respectively. For O₃ the density ranged between 10 (µg/m³) and 40 (µg/m³) inside the classroom while it was between 75 (µg/m³) and 110 (µg/m³) outside the classroom. The (WHO, 2011) recommends acceptable levels of exposure to O₃ at 100 µg/m³, on an 8-hour mean. The results presented in Table 2 show that in all the schools the exposure levels to O₃ were acceptable within the classrooms. However they were beyond the acceptable limit outside the classrooms in School A and School C.

As indicated previously, the filter for Pb placed at School E was found to be tempered with. In fact the filter did not take any particulate material, so no results could be reported from it. The filter placed at School C was actually the one which a Pb reading could be assessed from. With respect to the presence of Pb, atomic absorption spectroscopy was used after acid digestion of the exposed filter. The results indicated that Pb density

was < 0.007 ($\mu\text{g}/\text{m}^3$). It appears that this value would still be low over a period of a year from a South African perspective

Results of Water Analysis

To contextualise the results of the water analysis, it is worth pointing out first that the South African Department of Water Affairs and Forestry, (2011) has recommended the acceptable levels of parameters that could be in drinking water (see Table 3). The parameters appear in the South African National Standard (SANS 241-1: 2011, edition 1) for drinking water quality (ibid.). This is indicated in the tabulated results of the analysis. Here, the standards were used as a basis for comparison with our results. In fact, in the standards, the expectation is that drinking water shall comply with the numerical limits for the physical, chemical, and microbiological determinants on the Table. With respect to drinking water the Department of Water Affairs also expects that 99% must meet the standards' determined quality (Luyt, Muller & Tandlich, 2011)

Table 3: Results of water analysis including the analytical methods used and South African National Standard for drinking water quality

Sample ID	Units	Tap Water		Method	South African National Std ^a
		School B	School D		
Lead (CMP 1)	mg/l Pb	<0.01	<0.01	ICP	≤ 0.01
Nickel (CMP 1)	mg/l Ni	<0.02	<0.02	ICP	≤ 0.07
Arsenic	mg/l As	0.00111	0.0015	ICP	≤ 0.01
Mercury(tot)(CMP 3)	mg/l Hg	<0.001	0.001	CVG/ICP	≤ 0.006

CMP = Chemistry Method; CVG = Cold Vapour Generation; ICP = Inductively Coupled Plasma atomic emission spectrometry, tot= total

a = South African Department of Water Affairs and Forestry (2011).

The results indicated that most of the tested parameters in the drinking water from the schools were at acceptable levels (see Table 3). For instance, the values for *Nickel* were $<0.02\text{mg}/\ell$ Ni for (School B) and $<0.02\text{mg}/\ell$ Ni for (School D), which were at lower levels when compared to $\leq 0.07\text{mg}/\ell$ Ni recommended by the South African National Standard. Similarly for *Arsenic*, the values were $0.00111\text{mg}/\ell$ As for (School B) and $0.0015\text{mg}/\ell$ As for (School D) which were also at lower levels compared to $\leq 0.01\text{mg}/\ell$ As (South African National Standard). This suggests that the collected water samples complied with the recommended standards. With respect to Pb the determined concentrations ($<0.01\text{mg}/\text{L}$) in the water samples for both schools were right at the threshold of the recommended standards ($\leq 0.01\text{mg}/\text{L}$)

DISCUSSION AND CONCLUSION

This study aimed at determining the levels of pollutants in air and drinking water and how they may affect health in schools in the vicinity of coal mines in the town of eMalahleni, Mpumalanga province of South Africa. The result of the study revealed that pollutants SO_2 , NO_2 , O_3 , Ni, AS, Hg and Pb were indeed present in both air and water in the vicinity of the schools at various levels. The reality about these pollutants is that they may result in harmful health effects. About SO_2 it is reported that it can affect the respiratory system and the functioning of the lungs. Problems from these are associated with coughing, mucus secretion, aggravation of asthma, and chronic bronchitis that makes people more prone to infections of the respiratory tract (WHO, 2011). SO_2 is also reported to be the main cause of irritations of the eyes (WHO, 2011). The fact that SO_2 levels at School C were high is a cause for concern. In fact two issues need to be addressed in this school. Firstly, learners' and educators' health should be constantly monitored. Secondly, the levels of the SO_2 should be monitored too and appropriate action be taken to reduce these.

In this study it was reported that NO_2 inside and outside the classrooms could be at levels between 19 ($\mu\text{g}/\text{m}^3$) and 28 ($\mu\text{g}/\text{m}^3$). This may look innocuous when compared to the (WHO, 2011) guidelines of $40\mu\text{g}/\text{m}^3$ on an

annual mean. The main issue though is prolonged exposure to the NO₂. It is reported in fact that epidemiological studies have indicated that symptoms of bronchitis in asthmatic children increase proportionately with long-term exposure to NO₂ (WHO, 2011)

On the other hand, O₃ is reportedly responsible for breathing problems for instance. It is said that it may trigger asthma, reduce lung function and cause lung diseases (WHO, 2011). In this study, the amount of Pb measured in air at School C was found to be < 0.007 (µg/m³). This amount of Pb is reasonably low because in the US for example, the recommended air quality level for this pollutant is 1.5 µg/m³ for a maximum quarterly calendar average (United States Environmental Protection Agency, 2011). In fact the WHO (2004) recommended level is 0.5 µg/m³ to 1.0 µg/m³ on an annual mean. A good aspect about the Pb content with respect to air in this study is that it was low. This is in contrast to a study conducted in inner city schools in the Western Cape Province of South Africa. In that study it was reported that children were at risk of excessive exposure to environmental Pb because over 90% of their blood had levels of 10 µg/m³ (Mathee, Röllin, von Schirnding, Levin & Naik, 2006). The Western Cape study was comparable with a South Western Nigerian result that reported high levels of Pb in the air in the school environment. Further, this Nigerian study reported high levels of Pb that was above the recommended WHO air quality guidelines, in the urine of children in both urban and rural schools (Esimai & Awotoye, 2009).

With respect to water samples, most of the analyzed parameters were found to comply with the SANS guidelines for drinking water quality with the exception of Lead (Pb) which was found to be at the threshold limit of the guidelines. Our result is in contrast with a study conducted in Philadelphia on lead contamination in drinking water of some public schools. This study reported that Lead (Pb) levels exceeded the United States Environmental Protection Agencies Standards for drinking water quality. It was further stated by this author that lead-contaminated drinking water in schools is a cause of concern (Bryant 2004). Similarly, in Kansas a study conducted on lead in drinking water of some schools revealed that about one third of drinking water consumed by school children had some lead contamination which exceeded the USEPA guidelines thereby exposing them to both short term and long term health risks (Massey and Steele 2012). Although it was reported that most of the parameters in this study were within the recommended levels. It should be cautioned though that these parameters were however present. For example, heavy metals like Arsenic (As) and Mercury (Hg) were detected in the water. The problem with heavy metal accumulation is that it affects the quality of crops and thereby humans, animals and drinking water (Kawada and Suzuki, 1998). The presence of heavy metals has its inherent dangers because it is reported that long term exposure to these pollutants in drinking water leads to human health problems (Duda-Chodak and Blaszczyk 2008, Kaspizak et al. 2003). Here, the fact that Arsenic was at acceptable levels for example, does not indicate what the cumulative effect is from drinking water. This is because it is reported that prolonged intake of Arsenic in drinking water may result in cancer of various types and respiratory infections (Shi, Shi, & Liu, 2004). This issue is more critical considering that children in Taiwan that were in schools around coal power plants were reportedly susceptible to DNA damage, asthma and allergic rhinitis (Wong et al. 2005). Also, prolonged exposure to Arsenic in drinking water is reported to affect academic performance of school children (Wasserman et al. 2004).

The fact that the levels of Pb in water was found to be at the threshold limit of SANS should be a cause of concern to the educational community and government. This is because Pb is a fairly dangerous heavy metal with devastating effects. In fact in the United States high concentrations of this metal in the blood were reported to be responsible for 89% increase in deaths from cardiac diseases (Menke et al. 2006). Regarding children, it is reported that exposure to Pb affects the nervous system (Schütz et al. 1996, Heinze et al.1998, Okonkwo et al. 2001, Malcoe et al. 2002.). While it may appear that the level of Pb found in the water in this study was at the threshold limit of the recommended guidelines, this could still cause major health problems with children. The Pb content may be a problem with children because it is reported that "... even small exposures are associated with reduced IQ, increased ADHD and other health problems in children... No safe blood-lead level for children has been identified" (Young 2012 p. 3A).

It may be argued however that the air pollutants reported in this study were not as high. The problem here though is the risk of prolonged exposure. For instance, learners starting in Grade 8 in these schools are likely to be exposed to these pollutants for the next five years if they are to study there until Grade 12. What the compounded effect of this exposure results in, should be a source for concern. It is critical therefore that better environmental pollution management systems should be implemented by the mines and the allied industry. This

could be achieved by these entities assisting in ensuring that there is a marked decrease in the amounts of the pollutants they churn out. Major reductions will certainly assist learners and educators breathing and drinking pollution free air and water. Not only that, we recommend that learners and their educators should be medically checked from time to time by school management authorities. This is because while it may be argued that the levels as reported in this study were not at 'dangerous' levels the participants nonetheless spend most part of everyday of their lives in the schools. The fact that a majority of these participants are children makes this issue even more urgent. This calls for collective action because if these children are exposed to these chemicals from childhood until adulthood then their health may be compromised. Another way of managing this situation in order to avoid crises is to bring it to the attention of the learners parents through the Students Governing Bodies (SGB). Considering the fact that some of the parents may be health workers, they may be able to look at various ways of effectively mitigating the effects of these pollutants on the learners' health. It is also suggested that government can make policies that schools should not be cited close to coal mines and foundries and existing schools may be relocated far away from these industries

LIMITATIONS

This study was about assessing the levels of pollutants in air and drinking water and how they may affect health in schools in the vicinity of coal mines. The town eMalahleni in Mpumalanga Province was selected for the purposes of this study although this is not the only province where coal is mined in the country. This suggests that whatever is reported in this study may not be generalizable to all the coal mining belts of the country. Another limitation stems from the fact that some principals were not willing to allow us in the collection of data because they indicated that the schools were busy at this time of the year. In addition, an ideal situation would have been to measure the air quality following the periods depicted in this Table 1 as recommended in the ambient air quality standards in South Africa. Also, replicate analyses of the samples were not done and as such this study should be seen as a preliminary study until further investigations are concluded.

REFERENCES

- Abbas, R. A., & Alghobashy, A. A. (2012). Effect of an Environmental Health Educational Programme for Paediatricians in an Egyptian University Hospital: Before and after study. *Journal of the Royal Society of Medicine Short Reports*, 3 (86), 1 - 9.
- Agency for Toxic Substances and Diseases Registry. (2002). Nitrogen Oxides. Retrieved April 15, 2012, from <http://www.atsdr.cdc.gov/tfacts175.pdf>
- Bakshi, T. S., & Naveh, Z. (1980). *Environmental Education*. New York: Plenum Press.
- Briggs, D. (2003). Environmental Pollution and the Global Burden of Diseases. *British Medical Bulletin*, 1, 1-24.
- Brunekreef, B., & Holgate, S. T. (2002). Air Pollution and Health. *The Lancet*, 360, 1233 – 1242.
- Bryant, S. D. (2004). Lead-Contaminated Drinking Waters in the Public Schools of Philadelphia. *Journal of Toxicology and Clinical Toxicology*, 42 (3). 287 - 294.
- Burnard, K. & Bhattacharya, S. (2011). Power Generation from Coal: Ongoing Developments and Outlook. International Energy Agency (IEA). Retrieved March 22, 2012 from, http://www.iea.org/papers/2011/power_generation_from_coal.pdf
- Chauhan, A. J., & Johnston, S. L. (2003). Air Pollution and Infection in Respiratory Illness. *British Medical Bulletin*, 68, 95 – 112.
- Coal Mining in South Africa – Overview. (2012). Retrieved March 06, 2012 from <http://www.mbendi.com/indy/ming/coal/af/sa/p0005.htm>

Craven, P. (2012, March 22). Mine Water Pollution Threatens Mpumalanga Farms. *COSATU Daily News*. Retrieved March 26, 2012 from http://groups.google.com/group/cosat-daily-news/browse_thread/5167678cea42b4db/16c6cdf0cad7badf?show_docid=16c6cdf0cad7badf

Department of Environmental Affairs [Republic of South Africa] (2004). *Government Gazette: National Environmental Management Air Quality Act*, No. 39 of 2004, 534 (32 816), Department of Environmental Affairs: Pretoria, South Africa,

Department of Water Affairs and Forestry, [RSA]. (2011). Drinking Water Quality Process Management & Control. Retrieved July 05, 2012 from http://www.dwa.gov.za/dir_ws/DWQR/Subscr/ViewNewsDoc.asp?FileID=263

Dockery, D. W, Pope C. A. III. (2002). Outdoor Particulates". In *Topics in Environmental Epidemiology*. Edited by Steenland K, Savitz D. A. New York: Oxford University Press, 119 – 166.

Dubrova, Y. E., Nesterov, V. N., Krouchinsky, N. G., Ostapenko, V. A., Vergnaud, G., Giraudeau, F., Buard, J., & Jeffreys, A. J. (1997). Further Evidence for Elevated Human Minisatellite Mutation Rate in Belarus : Eight Years after the Chernobyl Accident, *Mutation Research*, 381, 267 – 278.

Duda-Chodak, A., & Blaszczyk, U. (2008). The Impact of Nickel on Human Health. *Journal of Elementology*, 13(4), 685 - 696.

Esimai, O. A., & Awotoye, O. O. (2009). Estimation of Lead in Urine of School Children in South Western Nigeria and Effect of Ascorbic Intervention. *African Journal of Environmental Science and Technology*, 3, 370 - 375.

Gambhir, R. S., Kapoor, V., Nirola, A., Sohi, R. & Bansal, V. (2012). Water Pollution: Impact of Pollutants and New Promising Techniques in Purification Process. *Journal of Human Ecology*, 37 (2), 103 - 109.

Gilliland, F. D., Berhane, K., Rappaport, E. B., Thomas, D. C., Avol, E., Gauderman, W. J., London, S. J., Margolis, H. G., McConnell, R., Islam, K. T. & Peters, J. M. (2001). The Effects of Ambient Air Pollution on School Absenteeism due to Respiratory Illnesses. *Epidemiology*, 12, 43 - 54.

Heinze, I., Gross, R., Stehle, P. & Dillon D. (1998). Assessment of Lead Exposure in School Children from Jakarta. *Environmental Health Perspective*, 106, 499 - 501.

Kawada, T., & Suzuki, S. (1998). A Review on the Cadmium Content of Rice, daily Cadmium Intake, and Accumulation in the Kidneys. *Journal of Occupational Health*, 40, 264 - 269.

Kearting, M. (2001). Cradle to Grave: The Environmental Impacts from Coal. Retrieved March 18, 2012 from http://www.joycefdn.org/resources/content/9/6/9/documents/Cradle_to_Grave2001.pdf

Lloyd, P. J. (2002). *Coal Mining and the Environment*. Energy Research Institute: University of Cape Town.

Luyt, C. D., Muller, W. J., & Tandlich, R. (2011). Low-Cost Tools for Microbial Quality Assessment of Drinking Water in South Africa. *HealthMED Journal*, 5 (6) [Supplementary 1], 1868 - 1877.

Malcoe, L. H., Lynch, R. A., Keger, M. C. & Skaggs, V. J. (2002). Lead Sources, Behaviors, and Socioeconomic Factors in Relation to Blood Lead of Native American and White Children: A Community-Based Assessment of a Former Mining Area. *Environmental Health Perspective*, 110, 221 - 31.

Massey, A. R & Steele, J. E. (2012). Lead in Drinking Water: Sampling in Primary Schools and Preschools in South Central Kansas. *Journal of Environmental Health*, 74 (7). 16 - 20.

Mathee A. (2003). Children are Major Victims of Environmental Pollution in South Africa. *Science in Africa - Africa's First On-line Science Magazine*. Retrieved March 15, 2012 from <http://www.scienceinAfrica.co.za/2003/june/child.htm>.

Mathee, A., Röllin, H., von Schirnding, Y., Levin, J. & Naik, I. (2006). Reductions in Blood Lead Levels among School Children following the Introduction of Unleaded Petrol in South Africa. *Environmental Research*, 100, 319 – 322.

Meng, Y., Babey, S. H., & Wolstein, J. (2012). Asthma-Related School Absenteeism and School Concentration of Low-Income Students in California. *Preventing Chronic Diseases*, 9 (110312). 1 - 8. DOI: <http://dx.doi.org/10.5888/pcd9.110312>

Menke, A., Muntner, P., Batuman, V., Silbergeld, E. K., & Guallar, E. (2006). Blood Lead below 0.48 micromol/L (10 microg/dL) and Mortality among US Adults. *Circulation*, 114. 1388 - 1394.

Moore, J. W., Stanitski, C. L., & Jurs, P. C. (2008). *Chemistry: The molecular science*. Volume 2. (3rd ed.). Canada: Cengage Learning.

Nathanson, J. A. (2012). Pollution. *Encyclopedia Britannica*. Retrieved March 15, 2012 from <http://www.britannica.com/EBchecked/topic/468070/pollution>

Nordstrom, D. K. (2011). Mine Waters: Acidic to Circumneutral. *Elements*, 7 (6), 393 - 398.

Okonkwo, J. O., Salia, M., Lwenje, V. S., Mtetwa, P. N., & Shilongonyane, M. (2001). Determination of Urinary Lead in School Children in Manzini, Swaziland, Southern Africa. *Environmentalist*, 21, 205 - 209.

Park, H., Lee, B., Ha, E., Lee, J., Kim, H., & Hong, Y. (2002). Association of Air Pollution with School Absenteeism Due to Illness. *Archives of Pediatric and Adolescent Medicine*, 156, 1235 - 1239.

Sabbioni, E., Goetz, L., & Bignoli, G. (1984). Health and Environmental Implications of Trace Metals Released from Coal-Fired Power Plants: An Assessment Study of the Situation in the European Community. *The Science of the Total Environment*, 40, 141 – 154.

Schutz, A., Barregard, L., Sallsten, G., Wilske, J., Manay, N., Perreira, L., & Cousillas, Z. (1997). Blood Lead in Uruguayan Children and Possible Sources of Exposure. *Environmental Research*, 74, 17 - 23.

Schwartz, J. (1994). Low-level Lead Exposure and Children's IQ: A Meta-Analysis and Search for a Threshold. *Environmental Research*, 65, 42 - 55.

Shi, H., Shi, X., & Liu, K. J. (2004). Oxidative Mechanism of Arsenic Toxicity and Carcinogenesis. *Molecular and Cellular Biochemistry*, 255. 67 – 78.

Shima, M., & Adachi, M. (2000). Effect of Outdoor and Indoor Nitrogen Dioxide on Respiratory Symptoms in School Children. *International Journal of Epidemiology*, 29, 862 - 870.

Stieb, D. M., Judek S., & Burnett, R. T. (2002). Meta-Analysis of Time-Series Studies of Air Pollution and Mortality. Effects of Gases and Particles and the Influence of Cause of Death, Age, and Season". *Journal of the Air and Waste Management Association*, 52, 470 - 484.

Sunyer, J., Atkinson, R., Ballester, F., Tertre, A. L., Ayres, J. G., Forastiere, F., Forsberg, B., Vonk, J. M., Bisanti, L., Anderson, R. H., Schwartz, J., & Katsouyanni, K. (2003). Respiratory Effects of Sulphur dioxide: A Hierarchical Multicity Analysis in the APHEA 2 study. *Journal of Occupational and Environmental Medicine*, 60, e2 - e2.

Taylor, W. R., & Newachek, P. W. (1992). Impact of Childhood Asthma on Health. *Pediatrics*, 90, 657 - 662.

United States Environmental Protection Agency. (2011). An Introduction to Indoor Air Quality: Lead (Pb). Retrieved April 06, 2012 from <http://www.epa.gov/iaq/lead.html>

Wasserman, G. A., Liu, X., Parvez, F., Ahsan, H., Factor-Litvak, P., van Geen, A., Slavkovich, V., Lofacono, N. J., Cheng, Z., Hussain, I., Momotaj, H. & Graziano, J. H. (2004). Water Arsenic Exposure and Children's Intellectual Function in Araihaazar, Bangladesh. *Environmental Health Perspectives*, 112 (13), 1329 - 1333.

Weitzman, M. (1982). School Absences: A Problem for the Paediatrician. *Pediatrics*, 69, 739 – 746.

World Health Organization. (2004). Health Topics. WHO Ambient Air Quality Guidelines. Retrieved May 17, 2012 from http://www.searo.who.int/EN/Section314_4289.htm

WHO. (2011). Air Quality and Health. Fact sheet. Retrieved May 28, 2012 from <http://www.who.int/mediacentre/factsheets/fs313/en/index.html>

Wong, R., Kuo, C., Hsu, M., Wang, T., Chang, P., Wu, T., & Huang, S. (2005). Increased Levels of 8-Hydroxy-2'-Deoxyguanosine Attributable to Carcinogenic Metal Exposure among School Children. *Environmental Health Perspectives*, 113 (10), 1386 - 1390.

World Coal Association. (2012). Coal and Electricity. Retrieved March 22, 2012 from, <http://www.worldcoal.org/coal/uses-of-coal/coal-electricity>

Young, A. (2012, July 13). Senate digs into 'Ghost Factory' Risk: Effect of Lead on kids is explored. *USA Today*, p. 3A.

INFORMATION AS A STRATEGIC BUSINESS ASSET

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ABSTRACT

The importance of information to individuals and organizations, and therefore the need to manage it well, is growing rapidly. Now more than ever, we need to understand the critical role information plays in so many aspects of business and life. It drives our communication, our decision making, and our reactions to the entire environment. My main objective in this paper is to identify the characteristics of information as an asset, the purposes of information management and information systems such as Management Information Systems (MIS), Supply Chain Management Information Systems (SCMIS) and Decision Support Systems (DSS) which play a vital role in the process of decision making in organizations and to discuss that organizations should or not focus on information rather than technology.

INTRODUCTION

Information is a critical asset in the operation of any business. The data you capture, record and share every day is the very definition of your relationships with vendors and customers, as well as the foundation for your internal operations and business processes. Organizations are increasingly aware of the potential of information in providing competitive advantage and sustaining their success (Porter, 1985) as evidenced in a number of published case studies (Owens, *et al.*, 1996; Grimshaw, 1995) and commentaries (Broadbent, 1977). The descriptions of information as an asset and a resource (Burk & Horton, 1988; Best, 1996) are no longer unusual. However, the origin of these descriptions in classical economics ignores the place of information in the fabric of a political system or culture of an organization. If information is to provide competitive advantage then its full potential needs to be considered. My main objective in this paper is to identify the characteristics of information as an asset, the purposes of information management and some types of information systems such as Management Information Systems (MIS), Supply Chain Management (SCM) and Decision Support Systems (DSS) which play a vital role in the process of decision making in organizations and to discuss that organizations should or not focus on information rather than technology.

Some definitions of information

Within information science, it is desirable to develop an understanding of information that is applicable for the various senses in which researchers and practitioners need to talk about information. Buckland (1991) has said that most definitions in the field represent approaches toward information that take information 1) as knowledge, 2) as process, or 3) as thing. Derr (1985), Dretske (1981) and Fox (1983) have followed the knowledge approach, by taking information to be various types of propositional statements. Boulding (1961), Brookes (1980) and Dervin (1977) have taken a different tack within the knowledge approach, by writing of information as constituting additions or changes in a mental map. Finally, after the original submission of this essay, but before the final version was sent in, a paper by A.D. Madden appeared, titled 'Evolution and information', where information is defined as "a stimulus which expands or amends the World View of the informed" (Madden 2004). This approach constitutes another of the definitions of the additions-or-changes-in-the-mental-map variety. Madden's paper is a reflection on why and how animals need to perceive and communicate information to each other. Continuing with Buckland's categories of information definitions, Pratt (1977) has taken the purest process approach by defining information as the moment of being informed, of 'in-formation' in the mind. Buckland himself (1991) has emphasized information's *thing-ness*, always of importance in a world with many information objects lying around. Claude Shannon, the progenitor of the original burst of interest in the concept just after World War II, took the amount of information to be a function of one's freedom of choice in selecting a

message (Shannon & Weaver 1975). Cornelius (2002), Day (2001), Hayles (1999) and Rayward (1992), on the other hand, view information as a social construct and endeavor to extract out the social meanings and history surrounding the term.

Is Information an Asset? Information is commonly referred to in the academic and popular literature as an “asset”. But is it really? The essential characteristics of an asset are (Godfrey et al, 1997; Henderson and Peirson, 1998):

1. Having service potential or future economic benefits: something is only an asset from an accounting viewpoint if it is expected to provide future services or economic benefits. The benefits may arise from either the use or sale of the assets. Information satisfies this requirement, because it provides the capability to deliver services and to make effective decisions.
2. Being controlled by the organization: “control” in this sense means the capacity of the organization to benefit from the asset and to deny or regulate the access of others to that benefit. Information also satisfies this requirement. If an organization has information, it alone has access to it unless it sells or gives access to another party.
3. Being the result of past transactions: this means that control over the asset has already been obtained as a result of past transactions such as purchases, internal development or discovery. Information also satisfies this requirement. Information is usually collected as the by-product of transactions which have occurred (internal development), or may be the result of a purchase (e.g. a proprietary mailing database) or discovery (e.g. through analysis of data).

The Seven “Laws” of Information

Like other organizational assets, information has a cost (how much it costs to acquire, store and maintain it) and a value (how much it is worth to the organization). However this is where the similarity ends. Information does not obey the same laws of economics that other assets do. It has some unique properties which must be understood in order to be able to measure its value (Glazer, 1993). We have attempted to define the nature of information as an asset by identifying

First Law: Information Is (Infinitely) Shareable

Perhaps the most unique characteristic of information as an asset is that it can be shared between any number of people, business areas and organizations without consequent loss of value to each party. The World Wide Web perhaps provides the ultimate example of how the same information can be shared by a virtually unlimited number of people. Most assets are appropriable. Either you have it or I have it. In the case of information, we can both have it (Glazer, 1993)

Shareability of Information

In general, sharing of information tends to multiply its value. The more people who use it, the more economic benefits can be extracted from it. A major problem in practice is that there are barriers, both institutional and personal, to sharing of information. “Knowledge is power”, and as a result, people do not share information easily (Davenport, 1994). Information hoarding where people deny others access to information represents a loss of business opportunity, because it prevents the potential value of information being realized (Moody and Walsh, 1999).

Second Law: The Value of Information Increases with Use

Most resources exhibit decreasing returns to use, they decrease in value the more they are used. For example, vehicles depreciate based on kilometers travelled, aircraft based on flight hours, plant and equipment based on hours in operation. However information actually increases in value the more it is used. The major cost of information is in its capture, storage and maintenance. The marginal costs of using it are almost negligible (Moody and Walsh, 1999). Information has no real value on its own. It only becomes valuable when people use it. From an accounting point of view, something can only be an asset if it provides future services or economic

benefits. If information is not used, it cannot possibly result in economic benefits and is therefore not an asset. Unused information is really a liability, because no value is extracted from it, and the organization incurs future costs of storage and measuring the value of information. In many organizations, there is a large amount of information that is collected and stored but never used (Moody and Walsh, 1999).

The prerequisites for using information effectively are:

- knowing it exists
- knowing where it is located
- having access to it
- knowing how to use it

Information is at its highest “potential” when everyone in the organization knows where it is, has access to it and knows how to use it. Information is at its lowest “potential” when people don’t even know it is there. In most organizations there is a huge amount of computer based information that could be used for business advantage. However the opportunities for using information are often not realized because people don’t know it exists. As obvious as it seems, few organizations have a catalogue of their information assets and where they are located. Clearly, such a situation would be intolerable for physical or financial assets. However information is not subject to the same audit requirements as other assets (Moody and Walsh, 1999). Another important issue is that of information literacy. It is often assumed that if information is provided to people that decision-making will automatically improve (Ackoff, 1964). However the quality of decision making depends on both the quality of information provided and the ability of decision-makers to interpret the information and use it to take appropriate action (information literacy). There is little point in improving the accuracy and timeliness of data if people don’t know how to use it effectively. Equal emphasis therefore needs to be placed on improving people’s information literacy skills as improving the quality of information itself.

Third Law: Information is Perishable

Like most other assets, the value of information tends to depreciate over time. The speed at which it loses value depends on the type of information. For example, once a customer has changed their address, the old address may be of little or no importance. On the other hand, product sales figures may be relevant for years into the future. As shown in Figure 3, information effectively has three “lives”: an operational shelf life, a decision support shelf life and a statutory shelf life (Moody and Walsh, 1999). Information has a relatively short useful lifetime at the operational level. Usually, the only information of relevance is very recent information such as a customer’s current address or their last bill. It has a much longer lifetime for decision support purposes. In practice, operational systems often discard information once it has exceeded its operational shelf life, making it unavailable for subsequent decision-making purposes. Data warehousing provides a mechanism for storing historical information which has exceeded its operational life, and making it available for decision support and analysis (Inmon, 1992).

Fourth Law: The Value of Information Increases with Accuracy

In general, the more accurate information is the more useful and therefore valuable it is. Inaccurate information can be very costly to an organization in terms of both operational errors and incorrect decision making (Wang and Strong, 1996). The level of accuracy required is highly dependent on the type of information and how it is used. For some information, 100% accuracy may be required (e.g. aircraft maintenance data or banking records), while for other information 80% may be good enough for practical purposes (e.g. employee home phone numbers).

For decision making purposes, often just knowing the accuracy of information is as important as having accurate information. If decision-makers know how accurate (or inaccurate) the information they are working with is, they can incorporate a margin for error into their decisions (Haebich, 1996). However in practice, the accuracy of data is rarely measured. People rely instead on subjective opinions and anecdotal evidence.

Fifth Law: The Value of Information Increases When Combined with Other Information

Information generally becomes more valuable when it can be compared and combined with other information. For example, customer information and sales information are each valuable information sources in their own right. However being able to relate the two sets of information together is infinitely more valuable from a business viewpoint. Being able to relate customer characteristics with buying patterns can help to target marketing efforts so that the right products are promoted to the right people at the right time. Producing decision support information generally requires consolidating information from a wide range of different operational systems. In most organizations, the lack of integration of information in operational systems is a major impediment to producing decision support information.

Sixth Law: More Is Not Necessarily Better

In most cases, the more of a certain resource you have (e.g. finances), the better off you are. A common management problem is deciding how to allocate limited resources (e.g. people or finances) among a number of competing causes. However with the increasing use of information technology, information is anything but scarce. In fact, the biggest problem in most organizations today is not the lack of information but the overabundance of information. Psychological evidence shows that humans have a strictly limited capacity for processing information (Miller, 1956; Newell and Simon, 1972). When the amount of information exceeds these limits, information overload ensues and comprehension degrades rapidly (Lipowski, 1975). It has been found in practice that decision making performance decreases once the amount of information exceeds a certain optimal point (O'Reilly, 1980; Driver and Mock, 1975; Jacoby et al, 1974).

Seventh Law: Information is not Depletable

Most resources are depletable. The more you use, the less you have. However information is self-generating. The more you use it, the more you have (Glazer, 1993). This is because new or derived information is often created as a result of summarizing, analyzing or combining different information sources together. The original information remains and the derived information is added to the existing asset base. Fundamentally, this is why information is not a scarce resource. Techniques like data mining are used specifically to generate new information from existing holdings of data (Moody and Walsh, 1999).

Purpose of information management

Information management contributes to the achievement of organizational goals. There is little doubt that information does contribute to the success of organizations. Whether information is regarded as a resource or a force for change and development it is clear that information can contribute to the achievement of organizational goals. The assumptions are made that the goals of an organization are explicit, thus are known throughout the organization and there is some way determining the extent to which the goals have been met (Kirk, 1999). A process approach to information management supports the integration of business strategy and information. The calls for integration come from at least three different communities: information management, information systems and management. Successful companies are those that adapt to and shape their environments and do so by using and creating information in a process of continuous improvement and innovation. Information management has been described in one particular model as a continuous cycle of related activities which encompass the information value chain. The activities in the cycle (Choo, 1995) are:

1. identification of information needs defined by subject matter requirements and situation
2. information acquisition involving evaluation of current sources, assessment of new sources and matching of sources to needs
3. information organization and storage of the organization's memory or its knowledge and expertise
4. information products and services aimed at enhancing the quality of information
5. information distribution through sharing information informally or formally
6. information use in the creation and application of information in interpretation and decision making.

Management Information Systems (MIS)

Management information system (MIS) is one of the major computer based information systems. Its purpose is to meet the general information need of all the managers in the firm or in some organizational subunit of the firm. Subunit can be based on functional areas on management levels. There are many definitions for MIS, but one of the most appropriate definitions describes management information system (MIS) as "an organizational method of providing past, present and projected information related to internal operations and external intelligence. It supports the planning, control and operation functions of an organization by furnishing uniform information in the proper time frame to assist the decision makers" (Waston, 1987). The information in MIS describes the firm or one of its major systems in terms of what has happened in the past, what is happening now and what is likely to happen in the future.

The role of MIS in decision making process

The MIS and its organizational subsystems contribute to decision making process in many basic ways. Nowadays, some of the organizations use MIS to assist managers for decision making. For example, to assist decision-makers in extracting synthesized information from a massive database such as the Current Public Transport Record (CPTR) of Durban (CPTR), the Durban Unicity Council decided to make use of a Public Transport Management Information System (PTMIS) developed by Stewart Scott. This system is for use by transport planners and managers (Louw et al, 2001). Power (2002) has stated that making decisions is an important part of working in business environment.

Supply Chain Management (SCM) and SCMIS

A supply chain is a network of facilities and distribution options that performs the functions of procurement of materials, transformation of these materials into intermediate and finished products, and the distribution of these finished products to customers (Kaihara 2003). Supply chain management (SCM) is mostly about effectively integrating the information and material flows within the demand and supply process (Soroor and Tarokh 2006a). The potential for improved productivity, cost reduction and customer service are enormous. Of course, the benefits are based on effectively employing the right processes and supporting information technology. This is a higher priority than ever before (Simchi-Levi et al. 1999). An SCMIS is user-interfaced and designed to provide information and information processing capability to support the strategy, operations, management analysis, and decision-making functions in an organization's supply network. The system uses IT, manual procedures, models, and knowledge bases and databases (Shemshadi et al. 2008). Applications may improve operational efficiency, improve and innovate functions, or restructure business processes. An information system stores, processes, and delivers information relevant to an organization's supply chain, in such a way that the information is useful to those who wish to use it, including managers, staff, customers, and suppliers (Soroor et al., 2009).

Decision Support Systems (DSS)

A decision support system or DSS is a computer based system intended for use by a particular manager or usually a group of managers at any organizational level in making a decision in the process of solving a semi structured decision. The DSS produces output in the form of periodic or special report or the results of mathematical simulations (Raymond, 1990). It is difficult to pinpoint that are completely structured or unstructured. The vast majorities are semi structured. This means that the DSS is aimed at the area where most semi structured decision is needed to be made (Soroor et al., 2009).

CONCLUSIONS

Information is a critical strategic asset for organizations and must be treated and accounted for accordingly. Like water in the home, the approach to managing information must ensure not only that it is leak proof but also that it is free flowing and on tap where and when it is needed. But, as with water, information can be taken for granted and often its value is only fully understood when one is deprived of it. Therefore, it should also be 'metered' and accounted for, so that its cleanliness and usage can be monitored and managed and it will be more appreciated for the precious resource that it is. Moreover, apart from variety of information system in business

world, MIS, DSS and SCMS were mentioned in this paper. According to studies (Asemi et al., 2011; Kirk, 1999; Soroor et al., 2009), it was found that MIS is best suited to identify problems and help management to understand them to make suitable decisions. At the same time, MIS is not aimed to help particular and specific need of the individual and group decision making while DSS are tailored to the specific need of individual and group managers. Therefore, it could be concluded, that DSS can extend its support to the same steps of decision making process and has more roles in decision-making and problem solving than MIS. On the other hand, SCMS provides high quality, relevant and timely information flow that effectively supports decision-making for inventory replenishment, capacity activation, and for synchronizing material flows at all tiers within the supply chain. It grants regularity and speed to the current SCM processes and prevents supply channel activities from getting too complicated and hard to perform. The ultimate goal of developing and implementing SCMS, in spite of the high related costs, is to increase SCM performance up to an acceptable level and facilitate all the processes necessary to perfectly accomplish supply network tasks. In future works can study on the role of other information systems for managers' decision making and comparative it to DSS, MIS and SCMS in order to achieve competitive advantage

REFERENCES

- Ackoff, R.L. (1964). Management Misinformation Systems. *Management Science*, December.
- Asemi, Asefah, Safari, Ali, and Zavareh, Adaleh Asemi (2011).The Role of Management Information System (MIS) and Decision Support System (DSS) for Manager's Decision Making Process. *International Journal of Business and Management*, 6(7), 164-173.
- Bawden, D. (1999). Information systems and the stimulation of creativity, *Journal of Information Science*, 12, 203-216
- Best, D.P. ed. (1996). *The Fourth Resource: Information and Its Management*. Aldershot, Hants: Aslib/Gower.
- Boulding, K.E. (1961). *The image: knowledge of life and society*. Ann Arbor, MI.: University of Michigan Press.
- Braman, S. (1989). Defining information: an approach for policymakers, *Telecommunications Policy* 13, 233-242
- Broadbent, M. (1977) The emerging phenomenon of knowledge management, *Australian Library Journal* 46, 6-23
- Broadbent, M., Lloyd, P., Hansell, A. & Dampney, C.N.G. (1992) Roles, responsibilities and requirements for managing information systems in the 1990's, *International Journal of Information Management* 12, 21-38
- Brookes, B. C. (1980). The foundations of information science. Part I. Philosophical aspects. *Journal of Information Science*, 2(3-4), 125-133.
- Buckland, M.K. (1991). Information as thing. *Journal of the American Society for Information Science*, 42(5), 351-360.
- Burk, C.F. & Horton, F.W. (1988) *Infomap: A Complete Guide to Discovering Corporate Information Resources*. Englewood Cliffs, NJ: Prentice Hall.
- Choo, C.W. (1995) *Information Management for the Intelligent Organisation: the Art of Scanning the Environment*. Medford, NJ: Information Today.
- Cornelius, I. (2002). Theorizing information for information science. *Annual Review of Information Science and Technology*, 36, 393-425.
- Davenport, T.H. (1994). Saving IT's Soul: Human Centred Information Management. *Harvard Business Review*, March-April.

- Day, R.E. (2001). *The modern invention of information*. Carbondale, IL: Southern Illinois University Press.
- Derr, R.L. (1985). The concept of information in ordinary discourse. *Information Processing & Management*, 21(6), 489-499.
- Dervin, B. (1977). Useful theory for librarianship: Communication, not information. *Drexel Library Quarterly*, 13(3), 16-32.
- Dretske, F.I. (1981). *Knowledge and the flow of information*. Cambridge, MA: The MIT Press.
- Driver, M. and Mock, T. (1975). Human Information Processing Decision Style Theory, and Accounting Information Systems. *Accounting Review*, 50.
- English, L.P. (1993). Accountability to the Rescue. *Database Programming and Design*, April.
- Fox, C. J. (1983). *Information and misinformation: an investigation of the notions of information, misinformation, informing and misinforming*. Westport, CN: Greenwood Press
- Glazer, R. (1993). "Measuring the Value of Information: The Information Intensive Organisation". *IBM Systems Journal*, 32(1).
- Godfrey, J., Hodgson, A., Holmes, S. and Kam, V. (1997). *Financial Accounting Theory*. 3rd Edition, John Wiley and Sons, New York.
- Goodhue, D.L., Wybo, M.D., and Kirsch, L.J. (1992). The Impact of Data Integration on the Costs and Benefits of Information System. *MIS Quarterly*, September.
- Grimshaw, A. ed. (1995). *Information Culture and Business Performance*. Hatfield, Herts: University of Hertfordshire Press.
- Haebich, W. (1997). A Methodology for Data Quality Management. Proceedings of the 1997. Conference on Information Quality, Massachusetts Institute of Technology.
- Hayles, N.K. (1999). *How we became posthuman: virtual bodies in cybernetics, literature and informatics*. Chicago, IL: University of Chicago Press.
- Henderson, S. and Peirson, G. (1998). *Issues in Financial Accounting*, 6th Edition, Longman Cheshire, Melbourne, Australia.
- Inmon, W.H. (1992). EIS and the Data Warehouse. *Database Programming and Design*, November.
- Jakoby, J., Speller, D. and Kohn, C. (1978). Brand Choice as a Function of Information Load. *Journal of Applied Psychology*, 63.
- Kirk, Joyce. (1999). Information in organizations: directions for information management. *Information Research*, 4(3). Available at: <http://informationr.net/ir/4-3/paper57.html>.
- Lipowski, Z.J. (1975). Sensory and Information Inputs Overload. *Comprehensive Psychiatry*, 16(3), 543-566
- Louw, J.J., Van Zyl, N.J.W., & Meintsma, J. (2001). Development of a public transport management Information system to assist decision-making in the restructuring of public transport in Durban. 20th South African Transport Conference South Africa, 16 – 20 July.
- Madden, A.D. (2004). Evolution and information. *Journal of Documentation*, 60(1), 9-23

Miller, G. (1956). The Magical Number Seven, Plus Or Minus Two: Some Limits On Our Capacity For Processing Information. *The Psychological Review*, March.

Moody, D.L. and Simsion, G.C. (1995). Justifying Investment in Information Resource Management. *Australian Journal of Information Systems*, September.

Moody, D.L. and Walsh, P. (1999). Measuring the Value of Information: An Asset Valuation Approach. 7th European Conference on Information Systems (ECIS'99), Copenhagen Business School, Frederiksberg, Denmark, 23-25 June, 1999.

Newell A., and Simon, H.A. (1972). *Human Problem Solving*, Prentice-Hall.

Nokhbatolfoghahaayee, H., Menhaj, M.B., & Shafiee, M. (2010). Fuzzy decision support system for crisis management with a new structure for decision making. *Expert Systems with Applications*, 37(5), 3545-3552.

O'Brien, C. and O'Brien, S. (1994). Mining Your Legacy Systems: A Data-Based Approach. Asia Pacific International DB2 User Group Conference, Melbourne, Australia, November 21-23.

O'Reilly, C.A. (1980). Individuals and Information Overload in Organizations: Is More Necessarily Better. *Academy of Management Journal*, 23(4).

Owens, I., Wilson, T.D. & Abell, A. (1996) *Information and Business Performance: A Study of Information Systems and Services in High Performing Companies*. London: Bowker Saur.

Owens, I. & Wilson, T.D. with Abell, A. (1997) Information and business performance: a study of information systems and services in high performing companies. *Journal of Librarianship and Information Science* 29, 19-28.

Pratt, A. D. (1977). The information of the image: a model of the communications process. *Libri*, 27(3), 204-220.

Raymond McLeod, Jr. (1998). *Management Information Systems*, 6th Ed. New Jersey: Prentice Hall.o

Raymond, McLeod, Jr. (1990). Raymond, *Information Systems*. New York, Macmillan Publishing Company.f library and information science: Disciplinary

Rayward, W.B. (1992). Restructuring and mobilizing information in documents: a historical perspective. In P.. Shannon, C.E. & Weaver, W. (1975). *Mathematical theory of communication*. Urbana, IL: University of Illinois Press.

Shemshadi, A., Soroor, J., and Tarokh, M.J. (2008). Implementing a multi-agent system for the realtime coordination of a typical supply chain based on the JADE technology. 3rd IEEE SMC International Conference on System of Systems Engineering (SoSE'08), June, USA. IEEE Computer Society SOSE 2008 Conference Proceedings, 742-747.

Soroor, J. and Tarokh, M.J. (2006a). Developing the next generation of the web and employing its potentials for coordinating the supply chain processes in a mobile real-time manner. *International Journal of Information Technology*, 12 (8), 1-40.

Soroor, J., Tarokh, M.J., and Keshtagary, M. (2009). Preventing failure in IT-enabled systems for supply chain management. *International Journal of Production Research*, 47(23), 6543-6557

Wang, R.Y. and Strong, D.M. (1996). Beyond Accuracy: What Data Quality Means to Data Consumers. *Journal of Management Information Systems*, 12(4), 223-251.

Waston, H.J., Carroll, A. B., & Mann, R. I. (1987). *Information Systems for Management*. Plano, TX: Business Publications Inc.

INHIBITING FACTORS FOR KNOWLEDGE TRANSFER IN INFORMATION TECHNOLOGY PROJECTS

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ABSTRACT

Information technology (IT) projects have been known for the high failure rates caused due to multitude of factors ranging from project dynamics, project environment to flexibility and fluid building blocks of these projects (Keith & Demirkon, 2009; Pretorius & Steyn, 2005; Shwalbe, 2010). The work in this paper following a qualitative methodology, based on six IT projects implemented in the last five years in the USA, identified inhibiting factors that influence them negatively. The results indicate that the knowledge transfer initiatives could help the IT projects to improve the overall performance. The research also helps in synthesizing convergence solutions to IT projects in creating innovative methods to minimize project risks.

INTRODUCTION

Information technology (IT) projects are impaired with intricate and complex issues which range from organizational culture, project environment, to project team skills, project body of knowledge, available skill level, temporary or permanent membership of the projects, team cohesion, predominantly virtual environment, project goals and their dissemination to the project teams, political and organizational capabilities, and complexity (Aladwani, 2002; Daniels & LaMarsh, 2007; Drake & Byrd, 2006; Hartman & Ashrafi, 2002; Keith & Demirkon, 2009; Shwalbe, 2010). The risks associated with IT projects are discussed in contemporary literature, for example 50 IT investments (challenging projects and associated budget) were analyzed to apply risk management (Benaroch., Lichtenstein, & Robinson, 2006). Environmental factors (that relate to customer demand), lack of staff skills, and competing business drivers are key factors that can lead to project failures (Chen., Zhang., & Lai, 2009; Benaroch, 2002). These factors have their component influencing the projects negatively, which cause to fail and/or lead to dismissal in the middle. Failure rates close to 70% have become common in IT projects (Daniels & LaMarsh, 2007). Knowledge transfer (KT) in IT projects depends on the extent of the knowledge culture and KT is related to the overall success of the project (Karlsen & Gotschalk, 2004). Project performance depends on the level of effort of KT (Landaeta, 2008). This work, following a qualitative case study methodology, derived patterns that impede the progress of the projects. This paper analyzed and identified the role of knowledge inhibitors with respect to IT project performance. These inhibiting factors, identified in this paper, enable IT project managers and future research in paying attention and in devising methods to mitigate project risks.

Software engineering testing analogy can be drawn for the research methodology used for this research. In software testing, functional testing assumes no internal logic of the system under test, while white box testing involves structural aspects of the software and requires the knowledge of internal (Singh & Rakesh, 2010; BCS-SIGIST, 2001). Following the black box method, defined as functional verification of a software system, however, is not possible to discover internal mechanism on how these projects were planned and executed (BCS-SIGIST, 2001). Adapting black box method for the research provides results

without knowing the internal dynamics; where as following white box method the project's internals are probed, analyzed and researched to gain better understanding. It allows to addressing associated problems that challenge these projects.

The paper is organized into introduction, which is this section, literature review, research goals, methodology, results, summary and recommendations, and conclusions and potential for future research. Literature review prepares the ground for this research, while projecting the gaps in the existing research. Methodology section provides research method selected and its rationale. Research goals include details of what the research tried to achieve and how it was done. Results section explains what the findings were and their interpretations and how to use them. Summary and recommendations part of this paper incorporates brief details of findings along with the recommendations derived from the data, collected. Conclusions and future research potential, the last section of the paper, projects the research conclusions and the possibilities for further research on this topic.

LITERATURE REVIEW

IT projects are found to poorly manage the associated risks. These risks include lack of skilled professionals, ambiguous business cases, poorly done requirements, and inadequate risk mitigation plans (Debbie, Timothy & Mark, 2007). IT projects suffer from multitude of problems due to measurable factors such as scope, time, quality, staff and money. These projects over the years have been found to fail and are still failing with lower success rates of only 29%, according to Standish Group CHAOS report published in 2004, along with other refereed references in IT project management literature (Debbie, Timothy & Mark, 2007; Hartmann, 2006). The trend of the failure rates is continuing despite the fact that there have been tremendous amount of advances in technology over the last decade. One observable phenomenon is that the IT projects are dealing with changing environment with dynamic business goals that are ever changing with increasingly difficult and competitive markets. Projects are going through challenges in the areas of overload, political motivations, and ambiguity (Haas, 2006). There are two major concerns in IT project environments, first, the building blocks are fluid, and the second there are multiple IT solutions for the same business need (Pretorius & Steyn, 2005). This flexible and fluid nature of IT projects lead to increased ambiguity, which is accentuated by organizational environmental factors, which influence the project performance negatively (Aladwani, 2002).

In knowledge management, the primary forms of knowledge transfer include two types of knowledge - tacit and explicit knowledge. While tacit knowledge resides internally in a person, explicit knowledge can be modeled and can be perceived through possible representations using modeling, expressions, and/or by other means (Cortada & Woods, 2000; Nickols, 2000). There are mechanisms, found in the literature, where tacit knowledge takes the forms of explicit and explicit knowledge taking the form of tacit, through knowledge flow (Nonaka, 1994). Project based knowledge, comprising of technical design knowledge, organizational knowledge, and business value knowledge enables the projects to compete with desired business outcomes and the key factor is alignment of these three areas (Reich., Gemino & Sauer, 2012).

Knowledge management literature, to this point, have included topics on frameworks that are general and includes project sense making, process coordination, knowledge transfer between projects for project management knowledge, and some other papers on capability models (Burgess, 2005; Ermine & Boughzala & Toukara, 2006; Iyer & Shankarnarayan & Wyner, 2006; Jewels & Ford, 2006; Haas, 2006; Kalpic & Bernus, 2006; Kane & Pretorius & Steyn, 2005; Landaeta, 2008; Whelton & Ballard & Tommelein, 2002). This paper provides results based on project dynamics in projects that were planned and executed in commercial settings. Impeding factors for knowledge transfer, within IT projects, are specific to the industry related to IT projects and vary from country to country (Argote & Ingram, 2000). IT project performance has been discussed in the literature with perspectives from culture, diversity, technologies and approaches followed by the teams (Aladwani, 2002; Daniels & LaMarsh, 2007; Drake & Byrd, 2006; Hartman & Ashrafi, 2002; Keith & Demirkon, 2009; Shwalbe, 2010). There is a gap in the literature in this area, which this research tries to address through exploring inhibiting factors for KT in IT projects from a project dynamics perspective. The research in this paper takes another approach, from qualitative stand point, working through data captured from project managers and project leads on project specific conditions, environment, and causes for failure from KM

perspective. Project performance relates to knowledge transfer (KT) via the level of KT effort, and body of knowledge in the project (Landaeta, 2008). In this paper inhibiting factors, causing the projects to fail, were identified. These factors were recognized with a reference to knowledge transfer and analyzed. The analysis leads to devising the methods and practices for knowledge management.

RESEARCH GOAL

The research aimed at looking at the problem of identifying the inhibiting factors, directly, from the collected data on projects that were implemented in the last five years. These projects have the latest history of what went during the project planning, execution and delivery stages, dynamics of the project teams, availability of resources, project environment, organizational elements, and project specific knowledge. By drilling through the data, it was possible to gain an understanding of the project specifics including the environment. This has led to discovering methods to mitigate and improve the project performance. Finally the research calls for marinating a continuum in knowledge transfer and project performance, which would be observed over a period of time.

METHODOLOGY

The research methodology adopted for this research was qualitative method with a case study approach. The intent of the research was to analyze the data derived from the projects that were conducted in the five years and to consider these projects as objects that had to be looked at from the perspective of understanding, exploring, and discovering and not necessarily for deducing inferences. While quantitative methods adopt reductionist approach, which tends to churn the data and operate on data from deduction techniques, qualitative methods adopt inductive and integrative approach and tries to find “what”, “how” and “why” of the story. The research in a qualitative study focuses on aggregation of the data rather than reducing the data, to provide greater understanding within the context specific knowledge (Verschuren, 2003). The projects were implemented, which cannot be manipulated for their outcome. These have to be viewed as such, and understood. Since this research focuses on understanding of the project specifics, as they existed, during the project execution, the research topic dictates the methodology to be qualitative. Case study method within qualitative branch was selected to study the object in question (which were the projects in this research), which requires considering the study of an object as a whole and a holistic manner (Yin, 2003).

The patterns of inhibiting factors in IT projects were gathered through the case study using multiple case-method. Since single case method may not yield valuable information, albeit, used in the contemporary research, and may impact negatively, in that it lacks generalization (Baxter & Jack, 2008). This also ensures the qualitative research characteristics such as conformability, transferability, generalizability and dependability and provides the research credibility (Creswell, 2007). This research took the approach of multiple case studies, with six cases, to make sure that the data were consistent. The data provided rich qualitative information to derive meaningful and powerful conclusions to allow continuing this research further in the future. Six cases in this research constitute six IT projects that were conducted within USA and which were performed in the last five years. Thus, it was possible to work on qualitatively rich data that was current and as well as potent to yield such findings that these can formulate into best practices.

The research adapted purposeful sampling method, designed by the researcher, to select the projects. The selection criteria, in addition, included those projects, which were initially challenged for scope, time, quality, staff or money, although succeeded after provisioning additional resources, and these projects are defined as challenged projects. These projects were also selected based on the environment in which they were initiated, planned and executed. The environment specifics included items such as project’s organizational level, project methodologies followed, standards adopted, and a clear absence of knowledge management infrastructure. The projects data was collected from five different organizations and the organizations selected followed and shared similar organizational maturity and project management levels which were implemented in the USA within the last five years. The selection provided the research with a plain field for comparing themes derived from multiple IT projects. Case study method in qualitative research methodology provided a platform to gather data from project managers and project leads via face-to-face interview sessions. The challenging factors,

relative to KM, were analyzed to explore inhibiting factors for knowledge transfer and prescribed KM practices that should be followed to alleviate the concerning issues.

The qualitative data from six IT project interviews were recorded, transcribed, and coded into themes and identified as KM practices. These patterns were listed in Table 1. The transcribing process included de-natural, instead of natural. Natural transcription requires that the speech is translated exactly as spoken, while de-natural transcription allows to transcribe the essence of the speech and not necessarily the verbatim (Cameron, 2001; Schegloff, 1997). IT project data contained technical information and was specific to the projects. The essence of what was said is important, relative to capturing exactly what was spoken.

Table 1. Causes of inhibiting factors in Knowledge Transfer (KT)

<i>S.No</i>	<i>Project 1</i>	<i>Project 2</i>	<i>Project 3</i>	<i>Project 4</i>	<i>Project 5</i>	<i>Project 6</i>
1	Multiple project assignment. The project members were assigned to 1 – 3 projects in parallel. The project team spent, at certain stage, 98% of the time on this project.	No one in the project was assigned to multiple projects. 40% people who were temporary members of the project.	The project team was assigned to 50% of their time for this project.	Team members assigned to multiple projects. One person who worked on temporary basis and was assigned to this project for 50% of the time.	Project team members were assigned for 2 – 3 projects at the same items There were people worked on temporary basis.	Project team members were assigned for four different projects at the same time including this project. There were temporary members who were the clients of the projects deliverables.
2	Technology Skills – average 3- 5 on (1-10 scale with 10 being most significant). Business and Systems Analysis skills were to be acquired and/or polished.	Technology Skills – average 9 (1-10 scale with 10 being most significant). Project had dependencies from other projects that were not necessarily captured due to lack of control on other projects.	Technology Skills – average 5 (1-10 scale with 10 being most significant). There was poor analysis done for the project and was essentially based their analysis empirically.	Technology Skills – average 6 (1-10 scale with 10 being most significant). There were issues on scope related concerns on ‘how’ of the tasks on the deliverables.	Technology Skills – average 9 (1-10 scale with 10 being most significant). Scope was changed to deliver, given the fixed time resulting in reduced deliverables.	Technology Skills – average 9 (1-10 scale with 10 being most significant). Detailed scope was not perceived and projected due to lack of analysis, although the team had technical expertise.
3	Virtual and time shifted environment. Lag time affected the project negatively on the project.	The team had heavy use of email communications followed by phone conversations. There were 10% offshore team members involved in this project.	There were two external team members who have dealt with the code involved for extending their help to the project.	The team interacted using predominantly virtual communications.	Teams interacted half and half for face-to-face and virtually, although virtual interactions dominated to the extent of 80%.	Team interactions were both face-to-face and virtual.
4	Interaction levels to the tune of 70% by the team	The interaction levels were found to be at 30%. There was some interaction among the project team, which resulted in informal knowledge sharing although informal in nature.	There was 20 – 25% (business group 70%) interaction level within the project teams.	There were interactions to the tune of 40%.	The team had to interact to about 30% of the time.	There were 60% of the interactions took place in the project teams.
5	Fluid deliverables. Scope changed 15 – 20 times.	Scope was reduced due to time constrains.	Scope was changed with additional work	Scope changed by 30% and changed five times.	There were no scope changes.	Deliverables had to be changed due to fluid and poorly

		Team spent several additional hours and beyond the normal working schedule.	added to the existing scope with no time extension. Scope of the project, initially, was too big.			understood requirements.
6	Vendor team performed majority of deliverables and this was a vendor product based development project.		The project was a vendor product based development and was an upgrade of the system.			Vendor product based development and upgrades for this project.
7	Training and learning happened at insignificant levels and occurred informally.	On-shore team trained offshore folks in the technology area. New team members joined the team. This led to time constraints, which impacted the scope of the project.	The project suffered from lack of knowledge. There was some gap in the skills and some new skills had to be acquired and could have been better. There were technical knowledge required and the vendor manuals were utilized as privileged by the team leads.	30% of the skills were to be learned for this project and happened informally.	Informal help received from the team members. The team was big and the project manager involved interacted with the team and found that there was drag on the resources within the project. New people joined the team and existing people left the project at different stages of the project affecting the project deliverables.	Some training took place on the vendor product.

Knowledge Inhibitor 1: Multiple Project Assignments

Project teams worked on multiple projects simultaneously with temporary members who were contracting. Teams were working beyond the regular hours and it was difficult for the teams to transfer knowledge on the tasks on which they performing. Teams focused on their deliverables with no other activity. Quality of the project output suffered resulting in an inferior product/service. No buffer time allocation identified and/or the teams could not use the buffer time for any knowledge activities. Temporary members focused on specific tasks and could not do beyond that. Multiple project assignment is common in IT project environment and requires team members to organize their tasks and schedules. Team members require time and bandwidth for knowledge activities such as sharing, representing, structuring, and transferring knowledge. The projects have had some buffer time allocated, as part of the project planning, and this time was used in resolving ambiguities, conflicts, unidentified risks, and changes in the scope. These factors lead to chaos in the project dynamics, which impacts KT.

Knowledge Inhibitor 2: Distributed and Insufficient Expertise

The project teams suffered from lack of analysis skills, which linked to both systems and business related expertise. Projects worked in a virtual environment working with teams from multiple countries. Expertise in project specific areas were all distributed over teams and individuals, with time and space dispersion, based on the function. While the scope at a high level was fine, detailed scope was challenging resulting in fluid and ambiguous deliverables. Inter project dependencies troubled the milestones while extending the timelines along with scope reduction and modifications. Teams required to be on a constant vigil and used their time to fixing scope problems. These scenarios inhibit the teams, due to lack of time and bandwidth, and make it harder to exchange knowledge. KT in these projects occurred at low levels with individuals learning bare essentials

informally with no recourse to the knowledge activities. Different approaches and mental models of multiple global teams also add to inferior knowledge transfer and act as inhibiting factors (Karlsen & Gotschalk, 2004).

Knowledge Inhibitor 3: Virtual Environment

Virtual environment dominated the project teams with the project teams interacting virtually for the majority of their time. Virtual settings required the teams to communicate asynchronously, for the most part, and the teams experienced delays and suffered from lack of understanding and clear goals. Teams relied on electronic communication and troubled by lack of ground rules, best practices, expectations, and clear understanding of project goals. These factors inhibit the project knowledge flow regardless of whether it is formal or informal.

Knowledge Inhibitor 4: Interaction Levels

Team interactions were found to be in excess of 20% and some cases to the tune of 70%. These increased and extended interactions caused project environments to use the resources inappropriately with less accountability to both quality and output of the project deliverables. The resource drag had led to unproductive atmosphere. Interaction levels that were informal in nature experienced some knowledge transfer locally with few people benefiting and on a temporary basis. This has a devastating effect on project performance as well as on knowledge transfer.

Knowledge Inhibitor 5: Fluid Deliverables

These project were teams troubled with fluid deliverables due to lack of detailed scope analysis with poor skill level. Multiple scope changes in excess of 5 were experienced along with reduced scope. The team members did not understand the deliverables and compromised the scope due to time constraints and the analysis was not given necessary importance. This is a knowledge inhibitor with people spending time on something that they are not good at. This means that there would be increased dependencies on the resources. For knowledge transfer to occur people should have time, however little it might be, and bandwidth. In one of the projects, it was found that information flow was privileged, which is also fairly common, as the projects may have to go through Sarbanes-Oxley (SA, 2007) or similar compliance guidelines for security and privacy reasons.

Knowledge Inhibitor 6: Vendor Product Development

Three of the six projects were delivering projects that were directly developing applications on vendor products. Vendor based development warrants specific knowledge on the products and requires integration skills for applications to be developed. Vendor development within these projects was found to challenge the teams due to teams' inadequate skills that relied heavily on vendor experts. The teams did not have time to interact enough for knowledge transfer. This is inhibiting factor for knowledge transfer, as there was not enough time or bandwidth for the project teams to share knowledge, which was accentuated by multiple time zones.

Knowledge Inhibitor 7: Informal Training and Learning

There were people leaving and joining the project in the middle of the projects and learning curve of the people affected the projects dearly. People from the teams had to train the new professionals, which were a drag on the resources. This inhibits the knowledge transfer in ways where people may suffer from lack of motivation and become hard-pressed for time and other resources. There were also experts in technology within the teams, although no apparent knowledge transfer could be found.

Training and learning activities were found to be minimal or poor and informal, although there were requirements from the teams for new skills for the projects. This is inhibiting in the sense that the project teams had no formal training or learning provision, although the teams were interested in the learning the required skills.

All of these projects were performed in predominantly virtual environments with the projects interacting teams were in different countries with time dispersed and space dispersed conditions. This commonly found team

structuring generates a consensus that the teams require common ground rules, which were lacking in all these projects. Communication, interactions, and relationships, developing trust, and setting expectations, were found to be in jeopardy. There were teams within these projects, which could not interact adequately for transferring knowledge due to lag time, asynchronous communication methods, and delayed or shifted project deliverables. This causes hindrance to knowledge transfer.

SUMMARY AND RECOMMENDATIONS

It was found that from the rich qualitative data that the projects were challenged for time, scope, quality and money. The research provided appropriate data that supported the significant presence of knowledge inhibitors. These have to be addressed through knowledge transfer mechanisms while minimizing or eliminating these hindering effects. Projects were found to have either low-level knowledge transfer and/or inadequate knowledge flow, although the projects required these and demanded optimized environment. The following are the recommendations.

- Allocate buffer time for KT within projects teams and account for it.
- Formalize KT through structuring knowledge and storing in knowledge base (KB).
- Measure knowledge transfer using structured knowledge references.
- Adapt to fast search mechanisms and provision organization techniques and tools.
- Reward knowledge-contributors.
- Maintain a continuum of knowledge flow.
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CONCLUSIONS AND FURTHER RESEARCH

The main contribution of this paper is the exploration of the inhibiting factors for KT within IT project environment. The research concludes that IT projects, despite the tremendous strides in technologies, processes and methods adopted in organizations can benefit from KT initiatives. These factors challenge the quality of the product/services that the projects deliver. Structuring and formalizing knowledge to enable it for exchange is the key, although not all knowledge can become a candidate for interchange. This significantly drives the project performance towards quality deliverables with improved project environment. Formalizing KT provides knowledge assets to organizations and helps in value creation. The increased complexity of IT projects with predominantly virtualized and global environments require to identify, recognize and implement creative methods to provision solutions for IT projects via managing vendor product knowledge management and learning management (Paramkusham, 2011).

The knowledge transfer should be viewed as a process and should be treated as such and made accountable, similar to any other process in the project development (Paramkusham2, 2011). The probability of improving the state of affairs in IT project management increases with the implementation of KM processes within risk management (Alhawari., Karadsheh., Nehari & Mansour, 2012). There is a large potential for further research on this topic. Environment specific to the industry and organization provides unique inhibiting factors, which can then be addressed through competent management methodologies. The research can be repeated with projects from a different population, such as India, to see if similar inhibiting factors could be found and how this compares. Further, the research can be extended to discovering KT motives within IT projects.

REFERENCES

- Aladwani, A. M. (2002). An Integrated Performance Model of Information Systems Projects. *Journal of Management Information Systems*, 19(1), 185-210. M.E. Sharpe Inc.
- Alhawari, S., Karadsheh, L., Nehari Talet, A., & Mansour, E. (2012). Knowledge-Based Risk Management framework for Information Technology project. *International Journal of Information Management*, 32(1), 50-65. Elsevier Ltd.

- Argote, L., & Ingram, P. (2000). Knowledge transfer: A basis for competitive advantage in firms. Special Issue: The psychological foundations of knowledge transfer in organizations. *Organizational Behavior Human Decision Processes*, 82(1), 150-169.
- BCS-SIGIST. (2001). Standard for software component testing. British Computer Society *Specialist Interest Group in Software Testing*, 3.4, 27.
- Benaroch, M. (2002). Managing Information Technology Investment Risk: A Real Options Perspective. *Journal of Management Information Systems*, 19(2), 43-84. M.E. Sharpe Inc.
- Benaroch, M., Lichtenstein, Y., & Robinson, K. (2006). Real options in information technology risk management: An empirical validation of risk-option relationships. *MIS Quarterly*, 30(4), 827-864. MIS Quarterly & The Society for Information Management.
- Brandon, D. (2006). Project Management for Modern Information Systems. *Managing*, 3, 1-433. IGI Global.
- Burgess, D. (2005). What Motivates Employees to Transfer Knowledge Outside Their Work Unit? *Journal of Business Communication*, 42(4), 324-348. SAGE Publications.
- Chen, Tao., Zhang, Jinlong., Lai, Kin-Keung (2009). An Integrated real options evaluating model for information technology projects under multiple risks. *International Journal of Project Management*, 27(8), 776-786.
- Cameron, Deborah. (2001). Working With Spoken Discourse. Thousand Oaks, CA: Sage.
- Daniels, C. B., & LaMarsh, W. J. (2007). Complexity as a Cause of Failure in Information Technology Project Management. *2007 IEEE International Conference on System of Systems Engineering*, 1-7. Ieee.
- Cortada, J. W., & Woods, J. A. (2000). The Tacit and Explicit Nature of Knowledge, The Knowledge in Knowledge Management. *Gulf Professional Publishing*, 1-576.
- Debbie, Tesch., & Timothy, Kloppenborg J., & Mark, Frolick N. (2007). IT project risks: The project management professional perspective. *The Journal of Computer Information Systems*.
- Drake, John R. and Byrd, Terry Anthony (2006) "Risk in Information Technology Project Portfolio Management," *Journal of Information Technology Theory and Application (JITTA)*: Vol. 8: Iss. 3, Article 3.
- Ermine, J.L., Boughzala, I., & Tounkara, T. (2006). Critical knowledge map as a decision tool for knowledge transfer actions. *The Electronic Journal of Knowledge Management*, 4(2), 129-140.
- Haas, M. R. (2006). Knowledge gathering, team capabilities, and project performance in challenging work environments. *Management Science*, 52(8), 1170-1184.
- Hartman, F., & Ashrafi, R. A. (2002). Project management in the information systems and information technologies industries. *Project Management Journal*, 33(3), 5-15.
- Hartmann, D. (2006). Interview: Jim Johnson of the Standish Group. *Info Q*.
- Iyer, B., Shankarnarayanan, G., & Wyner, G. (2006). Process coordination requirements implications for the design of knowledge management systems. *Journal of Computer Information Systems*.
- Jewels, T., & Ford, M. (2006). Factors Influencing Knowledge Sharing in Information Technology Projects. *eService Journal*, 5(1), 99-117. Indiana University Press.
- Kalpic, B., & Bernus, P. (2006). Business process modeling through the knowledge management perspective. *Journal of Knowledge Management*, 10(3), 40-56.

Karlsen, J. T., & Gottschalk, P. (2004). Factors Affecting Knowledge Transfer in IT Projects. *Engineering Management Journal*, 16(1), 3-10. American Society for Engineering Management.

Kane, Hilary., & Ragsdell, Gillian., & Oppenheim, Charles. (2006). Knowledge management methodologies. *Electronic Journal of Knowledge Management*, 4(2).

Keith, M., Demirkan, H., & Goul, M. (2009). Understanding Coordination in IT Project-Based Environments: An Examination of Team Cognition and Virtual Team Efficacy. *System Sciences 2009 HICSS 09 42nd Hawaii International Conference on DOI 101109/HICSS2009477*.

Landaeta, R. E. (2008). Evaluating benefits and challenges of knowledge transfer across projects. *Engineering Management Journal*, 20(1).

Nonaka, I. (1994). A dynamic theory of organizational knowledge creation. *Organization Science*, 5(1).

Nickols, F. (2000). The tacit and explicit nature of knowledge, the knowledge in knowledge management. *The knowledge management yearbook, 2001*, 12, 21.

Paramkusham, R.B. (2011). Creating and adopting innovative methods in information technology projects involving global teams. *Eastern Academy of Management - International Conference on Managing in a Global Economy XIV: Global Web of Knowledge*, 17, 1-29.

Paramkusham2, R. B. (2011). Integrated Knowledge Management Framework for Addressing IT Project Failures. *Dissertation Abstracts International*, 72(10), 1-214. (UMI No. 2420486531).

Pretorius, C. J., & Steyn, H. (2005). Knowledge management in project environments. *South African Journal of Business Management*, 36(3).

Reich, B. H., Gemino, A., & Sauer, C. (2012). Knowledge management and project-based knowledge in it projects: A model and preliminary empirical results. *International Journal of Project Management*, 30(0), 663-674. Elsevier Ltd.

Roberts, T., Cheney, P., Sweeney, P., & Hightower, R. (2004). The Effects of Information Technology Project Complexity on Group Interaction. *Journal of Management Information Systems*, 21(3), 223-247. M.E. Sharpe Inc.

SA (2007). Sarbanes-Oxley: Progressive Punishment for Regressive Victimization. *Houston Law Review*, 44(1), 95.

Schwalbe, K. (2010). *Information Technology Project Management*. (B. Golub & J. Devine, Eds.) *Technology* 1, 1. Thomson Course Technology.

Schegloff, Emanuel. (1997). "Whose Text? Whose Context?" *Discourse & Society*, 8, 165-187.

Singh, Manoranjan Kumar, & L, Rakesh. (2010). Mathematical Principles in Software Quality Engineering. *International Journal of Computer Science and Information Security*, 7(3).

Whelton, M., Ballard, G., & Tommelein, I. (2002). A knowledge management framework for project definition. *ITCon*, 7, 197-212.

LET THE GOVERNMENTS SERVE THE NEEDS OF THE PEOPLE: SHAPING PUBLIC POLICY AND PARTICIPATION IN THE SUB-SAHARAN AFRICA

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ABSTRACT

The question of public policy making and the manner in which public participation takes place in most African countries are controversial. This is because, since liberation of the 1960s, Africans have not fully benefitted from the fruits of their independence and democratic gains their countries have obtained. This paper is an attempt to argue for the need to broaden democratic participation to the publics in order that they could influence public policy and decision making processes. A literature is undertaken to understand how research has been conducted over the years as well as useful statistics regarding some of the indicators of the democratic participation (such as the literacy rates of the Sub-Saharan Africa) to understand these participation influences on public policy. The paper then concludes by highlighting some key considerations in the broadening the participation of Africans in the government affairs

INTRODUCTION

The notion of public participation in developing countries, especially in the African context is crucial. This is because institutional decision making has not appropriately benefitted the citizens in a manner that it is expected. Actually, the understanding of how governments' participation models are made to function is that citizens are left at peripheral positions which continue to marginalise their input in the public policy and decision making processes. In fact, those in the elite positions within communities have taken over decisions and created or supported parallel systems using public resources. For example, the effective and efficient provisions of public health care and education systems are generally seen to be cases in point where parallel systems (one for the rich and the other for the poor) exist. Largely the elites (politicians, senior civil servants and the business people) have supported the private education and health systems which actually compete with the public systems. As a matter of principle, it wouldn't be a problem to have elites supporting private systems except for the basic reason where those who financially supporting the private system are the ones entrusted to manage the public sector systems. Thus, the fact that elites have not been utilising such public services generate doubts on the effectiveness and efficiency of these systems and their intentions regarding their (systems) quality. This state of affairs raises fundamental questions that relate to the manner in which public policies are shaped through public participation. This is because the existing public participation trends are not sustainable as they serve to enrich the few (materially) while the majority of the citizens languish in poverty and at times rife unemployment on the African Continent. The question is: whether sub-Saharan countries can broaden democratic participation to their publics to influence public policy and decision making processes?

In order to address this question, two main issues should be borne in mind. Firstly, a broader civil society participation in government policy initiatives is necessary. The understanding of this aspect means that a place of government in the public sphere is underpinned by a need to ensure that African governments' policies represent the aspirations of their citizens. This is because both policy development and implementation are intended to address the societal challenges and therefore require that public policy should not be elitist but instead be broadened to the most vulnerable in the society. However, in Sub-Saharan countries, 38% of the adult population (or 153 million people) is unable to read and count in everyday life (UNESCO, 2010). In fact, it is projected that not a single country in Sub-Saharan Africa will be able to achieve the basic quantifiable goals by 2015, which are:

- Universal primary education - This goal is measured by the primary adjusted net enrolment ratio.
 - Adult literacy - This goal is measured by the literacy rate for those aged 15 and above.
 - Gender parity and equality - This goal is measured by the gender-specific education for all (EFA) index and gender specific index (GEI), an average of the gender parity indexes of the primary and secondary gross enrolment ratios and adult literacy rate.
 - Quality of education - This goal is measured by the survival rate to grade five.
- (UNESCO, 2010)

The issue of universal access to education is a second MDG goal in facilitating access to primary and secondary school education. The most vulnerable region lagging behind in this access to education is Sub-Saharan Africa (United Nations, 2010). The relevance of access to basic education is that governance and public administration issues are getting complex and participation of the civil society and the public continues to require high or tertiary education levels. Without access to education, it could mean that democratic participation and shaping of government policy would continue to be elitist and marginalise those who should be served (UNRISD, 2011). Further, the challenge of most of these civil society organisations to participate fully in the issues of public policy is that very few carry the agenda of the locals or represent legitimate local constituencies.

Secondly, the issue of media freedom requires an understanding on the approach and manner in which governments in most African countries have supported the role of the media. Tlakula (2012) as a commissioner of the African Commission on Human and People's Rights notes that there are many cases of government crackdown on media personalities and in some cases journalists are jailed. Usually, such actions by governments are propelled by discomfort regarding media stories about government corruption, graft and the diversion of public resources into benefiting private individuals. This is also due to a lack of the right to information policies which governments need to undertake through their parliamentary systems. A theoretical investigation is necessary to generate debates regarding possible interventions governments can put in place to facilitate and regulate government information access and media freedom. In responding to the questions and these matters of shaping public policy in Sub-Saharan region, several issues are considered and further discussed in the paper:

- An analysis of policy making and the role of government and its publics (in policy making processes).
- What are the generic participation modalities and who participates in those governments established policy making processes?

POLICY MAKING PROCESS AND THE DIFFERENT ROLES OF GOVERNMENT AND ITS PUBLICS

The question of policy making in different countries has always been a complex one. Part of the complexity is that policy making itself is a complicated process. What this paper attempts to do, however, is to consider whether policy making systems in place are taking into consideration the abilities of their people to participate (or rather to make relevant the process as well as the government role) in the engagement of people's views and aspirations.

According to Yahie (2000)

African governments adopted deliberate economic policies aiming at taking over the ownership of economic enterprises controlled by colonial regimes and creating a good number of parastatal agencies in production, finance and trade sectors. Nationalisation ideology promoted the introduction of these policies, which aimed at indiginisation and rapid development. These moves coincided with the economic boom of the 1960s and early 1970s. The gains of the post-independence decade were, however, doomed as prices of primary commodities that the continent depended on for export and to support its balance of payment fell. (p.5)

Yahie's (2000) views above are compelling in that the essence of policy making process and the different roles of government in the promotion of the general welfare of community are meant to ensure political and socio-economic benefits reaches the community which the government has undertaken to serve. There is some relevance of this discussion in this paper. Part of the relevance of this discussion is twofold. First, is the

nature of a governmental system in place in a democratic dispensation. That is, whether the role of the executive authority influences policy process in a manner which could advantage societies. The executive authority is embedded in the context of *trias politica* model which encapsulate a notion of separation of powers in any constitutional democratic dispensation. The other two key arms of government in a constitutional democracy include the judiciary and legislative authorities which are also complementary to one another. This is in regard to the fact that the rule of law is upheld above all individuals irrespective of their standing and positions in the society. The context for the executive authority in this regard is that its formation (executive authority) is done as a government of the day. This is because there is an expectation that policy implementation could only take place when specialists and practitioners are able to facilitate the provision of public services. The role of the executive/cabinet/government therefore remains to oversee and ensure that those employed in government departments possess the relevant managerial and administrative skills and competencies for improving public service delivery in line with the aspirations of the people. So, implementing public policy requires an understanding of how to transform the government plans into public services.

However, as this paper alludes, a question of the role of legislature needs attention because part of their responsibilities is to ensure that the executive authority undertakes their responsibility in line with the community's expectation. The question of accountability in any democratic society is central to this discussion of policy making and public participation since it eventually determines the pace of services. In regard to the electoral proportional representative system, a reinforcement of an elite theory is usually entertained. This is essentially because decisions are facilitated through an elitist system which denies the community opportunities to directly influence policy making. A proportional representative system considers a limited participation of the individuals in decision or policy making but entrenches a political party representation system which is understood to be intending to represent the needs of its communities. There are checks and balances as well as key political dynamics necessary for this model to be considered:

- Firstly, the question of the seniority of the politicians who are both in the legislature against those in the executive. This means that those in the legislature are often junior in their political careers of those in the executive. For example, the Speaker in Parliament often reports to the President of the ruling political party who is often the president of a country. In a case of this example, the President should be able to directly account to the legislature which he/she normally views as a junior structure. The question of a balancing act arises then in ensuring that the legislature and executive roles are enhanced.
- A ruling political party usually requires accountability from both the legislature members and executive authority and therefore creates parallel accountability systems which could render useless the legislature and other bodies created to hold government to account.
- The level of education to debate and understand issues is often compromised. This is because most of the Sub-Saharan countries do not consider educational qualifications level. To consider individuals as members of parliaments and cabinet positions education criteria could minimise challenges of poor performance of the legislatures and cabinets.
- An unbalanced majority in most African countries' public representatives (legislatures) often render other opposition relegated to the periphery since they are always outvoted.

This discussion may not always be correct because it is based on the assumption that governments in African countries are democratic and therefore adheres to this basic democratic tenet. That is, in a country where a different system of governance which is not democratic in nature is in place, a different approach to remodel such a system to give its public space to engage in public policy making process is crucial. In fact, Adejumbi (2000) provides a further complex picture regarding the state of democracy in African countries where a democratic project could be regarded to as a 'façade' where elections are arranged and the perpetual civil political autocracy which is often 'window-dressed' as a democratic rule (p. 8). Country experiences show that active and efficient government participation and a well-conceived strategy are necessary for providing, regulating and supervising the delivery of social services, for promoting improved welfare for all, and for protecting the progress achieved. These experiences also give some indication of the main characteristics of successful social interventions as well as their limitations (United Nations, 2012, p. 33).

Second, concerns whether the publics have what it takes to participate and influences decisions. These include the following: education, political affiliation, political connectedness, NGOs, etc. While this concern is critical

and has been partly addressed in the earlier discussions, it is necessary to highlight that they require targeted efforts to address their adverse effects on public participation and policy making. What remains necessary for further considerations is to understand participation modalities and those who uses these means of participation as discussed below.

PARTICIPATION MODALITIES AND WHO PARTICIPATES

Adejumobi (2000) argues that in order to successfully engender public participation and democracy in Africa, there are four dimensions which need to be taken into consideration. Namely, 1) the strengthening of civil society and unleashing and actualising its democratic potentials; 2) demilitarisation and demobilisation; 3) the re-orientation of economic policy; and 4) reconstructing the international context of democracy in Africa, by reforming the global economic and political order.

Since this paper considers the issues of policy making and public participation, its focus is not broader than what Adejumobi (2000) is proposing as indicated above. However, these issues (of public policy and public participation) are viewed in the context of the manner in which the governments in Sub-Saharan Africa consider the questions of public service delivery for their people. The question of public participation in African countries is essential if the myriad poverty and underdevelopment problems are to be addressed accordingly. This is because participation's intention should be premised on the notions of both problem identification and the necessary interventions to resolve such societal problems. The question of public participation is usually a highly politicised matter partly because it deals with decision making for the communal resources which are at the disposal of the public. In this regard, it means that influencing decisions remains an important individual and collective status of most groupings including African countries.

In asking a question of who really participates in the decision making process, particularly those that consider the usage of public resources, part of the answer could be found in the fact that a dominant elitist model has taken over decision making in many respect. While this matter may have been debated in the extensively in the public policy literature, what has not been clearly quantified is these elitist's interest. That is, whether the interest is for individuals and private gains over the societal benefits.

Public participation has been enacted in most of the countries south of the Sahara Desert and therefore raises expectations that major policy decisions such as education, housing, taxes, among others, should be influenced by those that are affected by such decisions, either directly or indirectly. For example, in a scenario whereby a public education fee is considered for an increase, different stakeholders require an opportunity to input their opinion on how the proposed policy amendments are likely to affect their constituencies going forward. A general understanding on this is that these stakeholders usually represent sections of the society which need such a voice in policy processes such as during such proposed amendments.

While such provisions are put in place to ensure a representation of those who need such a support, it is not always undertaken in the manner expected. In fact, in most cases, those who are expected to represent communities often have their priorities conflicted for one reason or the other. One key example of this assertion relates to the model of an election system which is a proportional representation whereby the elections of leaders are to the political parties who then have the power to nominate their members according to their own internal party processes. In regard to this, the issue of interest and loyalty of these elites often shifts away to favour individuals and political parties and not the community. This is despite the fact that these nominated individuals are expected to properly articulate societal needs. This kind of a system has positive advantages in cases where the minority's rights and representation are protected. However, in cases where the democratic processes are maturing, the challenge remains whether such a system is relevant since it is difficult to keep those representatives to account directly to those they are serving. If direct accountability to the society is enforced, then there would be dubious reporting which may not assist.

BROADENING THE PARTICIPATION OF AFRICANS IN THE GOVERNMENT AFFAIRS

This paper makes an attempt that when proper public participation channels are used in the Sub-Saharan African countries, the nature and shape of public policy would unavoidably favour citizens. This is because, the governments' undertakings have always meant to address the needs of the society, although in many cases in the African continent, an aberration to this thinking has been observed, especially since the 1960s after most countries were decolonised. Therefore, as captured in the discussions and literature above, some of the following aspects should be borne in mind in the ensuring of proper public policy and participation models which favour citizens:

- Governments that are in power through credible and legitimate election processes. While this is difficult to institute, the creation of democratic institutions and systems which are supportive of the rule of law needs urgent attention.
- A clarification of establishing civil societies which are able to maintain their mandate of addressing African issues. This is because, the role of a civil society is crucial in the development of policies that are relevant to African conditions. However, civil societies in most Sub-Saharan countries have been accused of conniving with and representing the views of the former colonial masters at the expense of the communities they claim to serve.
- Consolidating democratic systems is the essence of every government in Sub-Saharan Africa. The question of *trias politica* requires that each arm of government maintains its independence from the others. Usually, because politics (and ruling political parties) tend to conflate their responsibilities in dealing with this matter. This model could serve as a pillar that holds accountability for the success of any democratic dispensation if well implemented. Otherwise, an alternate model which considers African contexts should be investigated and promoted.
- Consolidating the role of African democratic systems at regional and continental levels to ensure that issues of political and socio-economic development are improved for the integration of the African systems.

CONCLUSION

In serving the needs of the people, governments' public policy is fundamental. Usually, the shape of public policy is influenced by the public participation of its citizens. This paper undertook to understand whether sub-Saharan countries can broaden democratic participation to their publics to influence public policy and decision making processes. In order to address this, several observations and discussions have been advanced, namely, the issue of policy making process and the different roles of government and its publics, participation modalities and who participates in the government affairs, as well as the broadening of participation of Africans in the government affairs. In the final analysis, it is argued that several considerations should be made, especially in the broadening of participation which sets out to allow citizens to input their views in shaping public policy to their favour.

REFERENCES

- Adejumobi, S. (2000). Africa and the Challenges of Democracy and Good Governance in the 21st Century.
- Tlakula, F.P. (2012). Activity report of Adv. Pansy Tlakula Commissioner of the African Commission on Human and Peoples' Rights. Presented at the 51st Ordinary session of the African Commission on Human and Peoples' Rights 18 April-15 May 2012, Banjul (Gambia). Available at www.achpr.org. Accessed 20 January 2013.
- UNESCO. (2010). Education for All Global Monitoring Report 2010: Reaching the marginalised. Available at www.efareport.unesco.org. Accessed 20 January 2013.
- United Nations. (2012). United Nations Development Strategy beyond 2015. New York: UN Publications.
- United Nations. (2010). Millennium Development Goals Report. New York: UN Publications.
- UNRISD. 2011. Social development in a uncertain world: UNRISD Research agenda 2010-2014. Geneva: UNRISD.

UBUNTU-CENTERED ASSESSMENT IN RURAL-BASED HIGHER EDUCATION UNDERGRADUATE PROFESSIONAL PROGRAM OFFERINGS

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ABSTRACT

Ubuntu is significant for everyone who wishes to understand the dynamics of rural settings and the heart of African people and their age-old values and belief systems. Mainly, the ancient concept of Ubuntu denotes a combination of the following elements; acknowledgement of the interdependence of people, respect for one another as a virtue and the need for inter and intra-personal relationships founded on cultural sensitivity for all parties involved. Invariably, in rural settings, how much people trust each other ranks highly in comparison to urban environments, even within the same country. Ubuntu provides exactly the kind of attitude needed to resolve a myriad of complex issues the rural-based Higher Education Institutions are currently confronted with; for example, curriculum relevance and the credibility of the attendant assessment processes. Consequently, this paper seeks to address an intriguing question, 'What does assessment measure and evaluate in rural-based Higher Education undergraduate professional program offerings?'

INTRODUCTION

teaching and learning practices, including the Field Instruction (FI) program assessment processes of some Higher Education undergraduate professional program offerings in South Africa are not doing justice to the cultural dynamics at play in rural-based settings. Besides, when rural-based learners who have no exposure to alternative settings by virtue of the dynamics of their upbringing encounter professional offerings – with the eminent reflections and the attendant workplace integrated learning or FI assessment processes they experience academic and cultural shock. Students can become anonymous failures, unrecognized, unseen and deeply troubled. All this implies that much more must be done by the Basic Education System (schools) and the Higher Education Institutions (universities) to address these gaps. On observation in South Africa, employers complain about the language competence of our graduates, and refer to a poor work ethic and to the absence of analytical skills.

This paper seeks to answer an intriguing question: *'What does assessment measure and evaluate in rural-based Higher Education undergraduate professional program offerings?'* Furthermore, the purpose of this paper is to contribute to a cumulative process of understanding how Higher Education undergraduate professional qualification assessment processes may borrow lessons from a tapestry of context-based meanings offered by cultural dynamics at play in different rural-based settings, without compromising the quality and program-specific standards. In the ensuing discussion, specific reference is made to social work and nursing science professions, respectively. The ancient concept of Ubuntu is engaged in informing the ensuing discussion, concluding with a resounding appeal to teachers, practitioners, researchers and other stakeholders' practice perspectives to heed a *'Return-to-Ubuntu'* call – which advocates a context-based preference of Afro-centric Ubuntu-Centered perspectives.

Furthermore, given the realities of linguistic and colonial biased-past, juxtaposed to the imperatives of The 1997 White Paper on Transformation of Higher Education, the significance of a paying attention to socio-cultural needs of indigenous or local community members when engaging teaching and learning practices, FI programs assessment, including the attendant profession-specific moderation processes cannot be overemphasised. This discussion is premised on the notion that mainly, assessment processes and related

perspectives are hugely influenced by issues of the local context, respective epistemologies, what and how students learn. It is noted that assessment has much to do with the formation and development of the professional self as impacted by profession-specific ethics, standards and quality assurance processes as determined by respective regulatory and accreditation associations, for example, the professional Standard Generating Bodies. Also, when embedded effectively within the larger culture of respective institutions, context-based assessment can help the teachers, practitioners, researchers and other stakeholders to collectively examine their assumptions, epistemologies, including perspectives that inform their own teaching and learning practices - with a view to consequently embrace a shared profession-specific and interdisciplinary academic culture dedicated to building and improving the capacity of the Higher Education sector in South Africa and internationally.

CULTURE, CONTEXT AND RELEVANCE

Culture consists of socially established structures of meaning that are passed down to members of cultural groups through behavior, narratives and stories. Narratives and stories are important because they structure the meanings by which a cultural group lives (Freeman and Couchonmal, 2006, p. 119). Additionally, culture is a set of interrelated behaviors, beliefs, values, attitudes and practices that are transmitted or communicated from generation to generation.

In the professional practice of Social Work and the Nursing Science, stories provide themes and issues that can help service providers to understand patients or cultural groups' connection to their past, and may ultimately help teachers, practitioners and student-practitioners to understand their current situations as enhanced by the culture-based narratives. Besides, FI can be an effective pedagogy when learning goals of specific courses include having students understand how a specific discipline plays out in a socio-cultural context. For example, having student understand how the two disciplines of Social Work and Nursing science collaborate in addressing the Health Promotion and Public Health issues facing society today, engaging multi-disciplinary perspectives and best practice models that reflect a sense of respect for the culture of local community members.

It is noted that culture strongly influences how people meet their basic needs, cope with the ordinary problems of life, make sense out of their experiences (their sickness, illness and diseases included), and negotiate power relationships, both within and outside their families and local communities alike. Thus, for the teacher, including student-practitioner working with patients and their families and/ or local community members it is important that they develop acceptable levels of cultural competence. As a result, reference will be made to the latter in the ensuing discussion. Mainly, cultural competence entails using sensitivity to the client/ patient's cultural background. Addressing the social work teacher and practitioner (Horejsi, 2006, p. 172-173) maintains that the social worker must be sensitive to his or her own culture and how that affects the manner in which he or she perceives clients and provide services. The same could be said about the professional nurse in the course of discharging their day-to-day duties, given that the latter professions are about improving the quality of life and health for all people irrespective of their race, creed or socio-cultural background.

ASSESSMENT CONTEXT DEFINED

According to Linn and Miller (2005), assessment is a systemic process that drives learning and begins with identification of learning goals and end with judgment concerning the extent to which these goals are achieved. Assessment includes a wide range of procedures that can be used to assess the student progress toward attainment of goals. These wide ranges of procedures are used to supplement the teacher's informal observations of students and are a more systemic measure of aptitude, achievement and personal development. These procedures may include observations, ratings of performance, projects, well extended responses or essays, students self-report including paper and pencil tests.

Furthermore, assessment that stimulates learning should have adequate sampling of the performances of complex competencies that cannot be broken down to form a holistic assessment (van Vleuten and Lambert, 2005, p. 309). Also (van Vleuten and Lambert, 2005, p. 315) hold that good assessments programme should incorporate several competency elements and multiple sources of information to evaluate those competencies on multiple occasions using credible standards. Making specific reference to the training and assessment of physicians (Epstein, 2007, p.2) postulates that the goals of assessment includes optimizing the capabilities of

learners by providing motivation and direction for future learning, protect public by identifying incompetent physicians and to provide a basis for choosing applicants for advanced training.

ASSESSMENT PROGRAM OBJECTIVES

It is noted that the generic objectives of an assessment programme include:

- To determine pass or fail of a learner. Meaning, the mark obtained will determine the promotion decision (Epstein, 2007, p. 3).
- To provide feedback during formative evaluation for improvement. Progressive feedback is very important in assessment as it ensures that any final decision does not come as a surprise to the learner. In case where feed-back is indicative of failure, a mechanism along the way should be implemented to remedy the situation (van Vleuten, 2005, p. 309). Furthermore (Epstein, 2007, p. 3) also emphasizes the value of feedback as it is said to optimize the capabilities of learners and teachers and by providing motivation and direction for future learning.
- To assess the cognitive aspect of the students (knowledge and intellectual skills), which includes the ability of the student to recall data, understand, use, analyze, synthesize and evaluate. Finally, the ultimate purpose in cognitive assessment is to evaluate if the learner has the ability to judge based on the specific criteria which can be internal (organization) or external criteria (relevance to purpose) (Linn and Miller, 2005, p. 526).
- To evaluate the effectiveness of the program and implement quality assurance processes to ensure that specific programme is of acceptable quality within the socio-cultural context in which it is offered. Here, the aim is to define the criteria that can be used to judge quality.

ELEMENTARY KNOWLEDGE STRUCTURES TO BE ASSESSED IN UNDERGRADUATE PROFESSIONAL OFFERINGS

The need to explain to students the ‘what’ and ‘why’ of Field Instruction in the early phases of their course of study cannot be overemphasized. Overall, this means making clear to students what their individual commitment to the FI projects will be. To this end Kelly (2012) notes that “By participating in service, students take on a responsibility beyond their performance in class. For, example, if a student does not complete a term paper, his or her grades suffer but it does not affect others. If a student does not show up for a service activity, community members can be adversely affected” (p.1). Alongside this, it is also important to explain to students the ‘planning-reflection-action’ principle of the life-cycle of every project. Students need to comprehend what critical reflection means and why it forms an essential part of their Field Instruction program.

Furthermore, based on the System’s framework, the approach to helping people for the two professional disciplines grows out of the basic premise that human beings can be understood and helped only in the context of their intimate and broader social systems of which they are a part, Sheafor and Horejsi (2006). As indicated earlier, culture seems like an all-encompassing word for the application of the latter. On the other hand, at the center of postmodern thought, social construction seeks to understand the processes, by which people describe, explain (for example, the origins of their sickness, illness and diseases) and ultimately view the world and themselves.

Also, social constructivism holds that the individual’s past experiences, backgrounds, historical contexts and social exchanges influence their knowledge and understanding of the world around them. Again, the concept of culture seems to be the most appropriate word in terms of summarizing the latter. And ultimately, this very concept of culture enable the intriguing question raised by the authors to be addressed, namely, ‘*What does assessment measure and evaluate in rural-based Higher Education undergraduate professional program offerings?*’.

Notably, this notion and use of the concept of culture provides a means of bringing analysis of the field of assessment; including the attendant knowledge, the intellectual production and the reproduction thereof within

the framework of rural-based Higher Education undergraduate professional offerings. Furthermore, three socio-cultural and context-related issues of interest that stand to render the envisaged professional interventions both meaningful and sustainable beyond the termination of the student-practitioner's FI are identified and discussed, namely: (a) the attitude of both the teacher and the student-practitioner, (b) cultural competence and (c) the embedded knowledge and the skill to be appropriated by both the teacher and the student-practitioner during the administration of the FI at different levels of their course of study. That said, a brief illustration on their application follows, proposing what the student-practitioner needs to be taught as part of their learning goals in their individual elementary knowledge structures within the context of their respective programs. It is envisaged that these learning goals would inform the formative and the summative assessment processes, with a view to enhance motivation and direction for future learning - given the notion of life-long learning for both the teacher and the student.

(a) The attitude of both the educator and the student-practitioner

This refers to the attitude of students towards the cultural heritage of the indigenous or local people where they are required to conduct their Field Instruction (FI), otherwise referred to as Work Integrated Learning (WIL) program. Students need to be taught that they need to 'sit down' ask questions and listen to the belief systems and issues of the local people or patients as a critical determinant for the success of their FI because they are the ones who know their traditions, culture and values best, and as such they are experts in their own rights. This calls for the 'critical reflection' principle to be incorporated in all phases of student-teacher FI experiential learning. It is noted that 'critical reflection' enhances learning in that it presents countless opportunities for the teacher and students to examine the meaning and socio-cultural significance of experiences, data or different FI-related encounters. Because this has a direct bearing on the assessment of the FI program, Hvenegaard (2012) holds that "both the teacher and the student might want to create a list of recommendations that might improve an activity for future students" (p. 3). The latter may take the form of required process notes, a group debriefing and sharing circles in the form of special FI tutorial sessions.

(b) Cultural competence

This is the critical cultural consciousness or the functional knowledge of the culture, belief systems, the norms, traditions and rituals, including the local traditional leadership tribunal systems. In this case, students need to be taught that expression of trust, respect and belief in local people and acknowledging their traditional leadership as credible in that context – when expressed through cultural competence in their client/ patient relationship, enhances the value of teaching and learning practices, including the attendant assessment process. The principle being expressed in the latter is that the means (the process of communication information or knowledge) justifies the end, namely, the envisaged professional intervention the student-practitioner is expected to propose and administer to the community members, clients or individual patients, respectively.

However, it is noted that the major challenge facing designing and administering a FI program in a rural-based setting is finding Community-Based Organizations (CBO's), understanding their needs and all the attendant logistical issues. And given the notion that CBO's deeply understand local issues and their contextual manifestations Kelly (2012) maintains that "sharing a draft of the FI syllabus with them as partners to solicit their input on the learning outcomes, including the students' learning goals is crucial for the effectiveness and quality assurance processes, measuring and evaluating the effectiveness of assessment procedures" (p.1).

(c) The skill to be appropriated during FI program

This refers to the ability of both the teacher and student to appropriate the abovementioned sections (a) and (b) confidently within the generic and specific learning outcomes of respective professional degree program offerings at different levels during their course of study. Also, given the notion that in South Africa the learning outcomes of the Social Work and the Nursing Science professions are predetermined by their respective Standard Generating Bodies, the teacher's role is to present a wide variety of pedagogies that can be used to help students achieve those learning outcomes. Besides, for the two disciplines, the FI program becomes an ideal pedagogy to achieve those learning outcomes.

Additionally, students need to be taught that they would do well to use the local peoples' 'frame of reference' as a point of departure in their FI program as it renders the process of learning and the attendant assessment

processes meaningful and credible for the local people especially. Besides, this is one way to communicate respect for the local people, clients and/ or the patients, respectively.

CONCLUSION AND RECOMMENDATIONS

The preceding discussion sought to address an intriguing question, ‘what does assessment measure and evaluate in rural-based Higher Education undergraduate professional offerings?’ Socio-cultural and context-related issues that need to enjoy prime currency during assessment processes of rural-based Higher Education professional offerings were identified and discussed. An illustration of their respective FI application was presented; given the notion that the thrust of the professions of Social Work and Nursing Science is to improve the quality of life and health for all people irrespective of their race, creed or socio-cultural background. It is noted that the overarching objective of the assessment process in rural-based Higher Education undergraduate professional offerings is to evaluate their effectiveness and to implement quality assurance procedures to ensure that the program is of acceptable quality in the socio-cultural context within which they are offered.

Furthermore, when embedded effectively within larger culture of respective institutions, rural-based and context-based assessment processes can help teachers, practitioners, researchers and other stakeholders to collectively examine their assumptions, epistemologies, including perspectives that inform their own teaching and learning practices; with a view to consequently embrace a shared profession-specific and multi-disciplinary academic culture dedicated to building and improving the capacity of the Higher Education sector in South Africa and internationally. This paper is an advocacy tool appealing to teachers, practitioners, researchers and other stakeholders’ practice perspective to heed a ‘Return-to-Ubuntu’ call – which promotes a context-based preference of Afro-centric Ubuntu-Centered perspectives.

REFERENCES

- Davies H, Archer J. (2005). Multi source feedback: Development and practical aspects. *Clinical Teacher*; 2 (2):77-81.
- Dolmans, D.H.J.M., Wolfhagen, H.A.P. and Scherbier A.J.J.A (2003). From quality assurance to total quality management. How can quality assurance result in continuous improvement in Health Educations Professions Education? *Education for health: 16* (2), 210-217.
- Epstein, R.M. (2007). Assessment in medical education. *New England Journal of Medicine*, 356 (4), 387-396.
- Freeman, E.M. & Couchonnal, G. (2006). Families in Society. *The Journal of Contemporary Services*, (87) 2:198-220.
- Hvenegaard, G.T. (2012). Making the most of Fieldwork Learning Experiences. Faculty Focus: Focused on today’s Higher Education Professional, August 7. (Online) Accessed on 15 November at: <http://www.facultyfocus.com/articles/curriculum-development/making-the-most-of-fieldwork-learning-experiences>
- Kelly, R. (2012). Service Learning Course Development. Faculty Focus: Focused on today’s Higher Education Professional, June 12. (Online) Accessed on 15 November at: <http://www.facultyfocus.com/articles/curriculum-development/service-learning-course-development>
- Lebese, R.T. and Phiri, C.M. (2012). Ubuntu in health care: setting the tone for an interdisciplinary African epistemology. *Southern African Journal for Folklore Studies*, Vol 22 (2) December.
- Linn, R.L. and Miller, M.D. (2005). Measurement and assessment in teaching (9th Ed). New Jersey: personal Education International
- Louw, D.J. (2011). Ubuntu: An African Assessment of the Religious Other. Available at <http://www.bu.edu/wcp/Papers/Afri/AfriLouw.htm>. accessed 19 September.

Phiri, C.M. (2008). *The Application of Person-Centered Approach in dealing with Community Power issues: A Case study* .MA, dissertation. Pretoria: University of South Africa

Sheafor, B.W. & Horejsi, C.R. (2006). *Techniques and Guidelines for Social Work Practice (7th Ed)* United States of America: Allyn & Bacon

Van der Vleuten, C.P.M., Schuwirth, L.WT. (2005). Assessing professional competence: From methods to programmes. *Medical Education*. 39. 309-317

ORPHANS AND VULNERABLE CHILDREN (OVC) PROGRAM MANAGEMENT: THE CASE OF HOPE WORLDWIDE SOUTH AFRICA

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ABSTRACT

HIV is an epidemic affecting all people in the world regardless of race, gender or class. The epidemic has also left children alone due to death of their parents, often during their prime years of life, devastating families and communities. Stigma-related issues may cause orphans to be denied access to schooling, health care, housing and other social security services. Worst still, Orphans may also be stripped of their inheritances and property, and thus further jeopardize their livelihoods as orphans. It is aptly noted that in countries that have high levels of HIV infection, an apparent trend is that the increase in Orphans and Children made Vulnerable because of HIV and AIDS (OVC) has been so sporadic that it has overwhelmed the extended family system. The aim of the study was to investigate the role and challenges faced by the OVC Program Manager in improving the health and quality of life of affected children in Johannesburg, South Africa.

INTRODUCTION

UNAIDS (1999) asserts that a child is orphaned when he/ she loses both or either one of the parents. It is noted that in countries that have high levels of HIV infection, an apparent trend is that the increase in Orphans and Children made Vulnerable because of HIV and AIDS (OVC) has been so sporadic that it has overwhelmed the extended family system. Orphans themselves are in a difficult position, having to contend with conditions that are financially, socially and emotionally dislocating. Besides the financial constraints, orphans are more prone to have their schooling disrupted as they move around between caregivers and thus are likely to perform poorly in school. Adato et al., (2006) hold that orphans encounter many difficulties in staying at school which infringes on their right to education. Also, stigma may cause orphans to be denied access to schooling, health care, housing and other services. The incidence of dropping out of school and falling behind in school is greater for children orphaned as a result of HIV and AIDS in comparison to other causes of orphan hood.

Studies show that orphans were also more likely to have dropped out of school compared to non-orphans, citing financial difficulties as the main reason. Literature also indicates that non-orphans have superior rates of school attendance compared to children orphaned by HIV and AIDS. While there is no conclusive evidence to suggest that orphaning per se increases the risk of children missing school, research from Uganda suggests that double-orphans are most likely to miss out on an education, UNICEF (2006). For example, in Africa in 2005, 70 per cent of non-orphans attended school compared to 62 per of orphaned children, UNICEF (2006). Furthermore, a study conducted during 1991-1994 in Tanzania found that the death of a mother or both parents negatively impacted on school enrolment, Ainsworth et al. (2005). Again, access to education tends to be skewed in favour of male children and the education of girls is often compromised. Evidence from Kenya showed that young girls were most likely to fall behind in school on death of a parent as girls' education was deemed unimportant, Ainsworth et al. (2005). Worst still, Orphans may also be stripped of their inheritances and property, and thus further jeopardize their livelihoods as orphans. On the other hand, in 2006 the South African Department of Health estimated that by the year 2010 South Africa will have 2.3 million orphans, or approximately 15, 8% of the total child population.

Hope Worldwide South Africa is a Nonprofit Organization established in 1991. It is a Faith based Organization affiliated to the International Churches of Christ involved in community-based HIV and AIDS care, support and prevention efforts. These programs began in South Africa, Soweto in 1994 and quickly expanded to offer services at over 30 sites. The NGO works in partnership with the government, decision-makers and professionals with trained staff at all levels of management, supervision and operation, www.africa.hopewww.org. Furthermore, Hope Worldwide South Africa OVC Program Manager is a professional social worker; and professional social workers play multiple roles in promoting the health and wellbeing of their communities, individuals and society. Social Work is an applied science and mainly, it is concerned with how people and their environments interact and the factors that affect their ability to accomplish the life tasks, distress and realize their aspirations and values. In South Africa, The 1997 White Paper on Developmental Social Welfare provides regulatory framework for social welfare services to be rendered along the continuum of Prevention-Development-Care-Support. This paper is based on research conducted in 2006 at Johannesburg, Gauteng Province.

METHODOLOGY

The aim of the study was to investigate the role and challenges faced by the OVC Program Manager in improving the health and quality of life of affected children in Johannesburg, South Africa. The study adopted qualitative research methodology and purposive sampling was used. A semi-structured interview guide was designed with open-ended questions developed to avoid ambiguity and bias, and 10 key respondents in the employ of Hope Worldwide South Africa underwent interviews. The method used in the present study provide direction to the interviews, ensuring that the content focuses on the crucial issues of the study, without imposing too much structure in obtaining responses and allowing for exploration of unexpected and potentially significant responses to be framed from the perspective of the participants themselves. Prior to this process, procedures for anonymity, confidentiality and participants' withdrawal were designed to ensure ethical integrity and minimize any risks of participation in the study. Data analysis was conducted on interview transcripts based upon Ross-Jones and Longhurst (2010) six-phased thematic analysis approach cited in Phiri and Perron (2012, p. 163). A summary of this data analysis approach as undertaken in this study is provided in Table 1. The researcher depended primarily on respondents descriptive narrative accounts of their day-to-day lived experiences as OVC Service Providers, and themes identified using this approach form the evidence base from which this research draws its conclusions.

Table 1: Summary of the six-phase thematic analysis process undertaken.

Phase	Description of the process
1. Familiarize with data	Raw data transcribed, transcripts read and re-read
2. Generate initial codes	Segments were coded for as many features as necessary. Once all data was coded, data were collated by code. Final transcripts read and all segments of data were systematically coded for features
3. Search for themes	A list of codes was produced and related codes were gathered into potential themes. All data relevant to each theme was then collated
4. Review themes	Data relating to each potential theme was considered in relation to other themes. The validity of themes was considered in relation to entire data set.
5. Define and name themes	A detailed analysis was conducted on each theme by organising data into a coherent account, with narrative. Constructs were given to each theme for the written account.

6. Produce the report	The final analysis of themes was conducted and presented in the report
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Source: Ross-Jones and Longhurst (2010) cited in Phiri and Perron (2012, p. 163)

Results and discussion

The 1997 White Paper on Developmental Social Welfare categorically states that the Government is committed to giving the highest priority to the promotion of family life and to the survival, protection and development of all South African children. Furthermore, this White Paper indicates that family support programs should address the fundamental causes of family disintegration. In this case, the latter presents itself as HIV/ AIDS, leaving children as orphans, vulnerable and disenfranchised. Through the narrative analysis, the following three themes that relate to the aim of the study were identified:

Theme 1: *OVC funding sources for Hope Worldwide South Africa*

Results reveal that a significant amount of the NGO program funding is provided for by the International Churches of Christ involved in community-based HIV and AIDS care, support and prevention efforts. Given that Hope Worldwide South Africa as an NGO is an initiative that has its roots in the United States of America, this assertion is understandable. In South Africa, the government has introduced various types of poverty alleviation measures, and social security assistance assumes a prominent role. Social grants like Foster Care Grant (FCG) fulfill a crucial role in the poverty alleviation process and are essential in helping poor households enjoy a life of dignity and it is envisaged that it will help in meeting minimum standards of living. It is noted that in South Africa the extent and scope of social assistance is well defined, however, a source of concern is that the impact of HIV/AIDS and the attendant OVC phenomenon trajectories are evidently causing a strain on related grants. It is for this reason that initiatives like Hope Worldwide South Africa are a most welcome and sought after intervention. At the time of the study, the value of FCG was R590.00.

Foster care is a crucial element of care for children whose parents have passed-on or who are simply unable to care for themselves. The original role of the foster care system, namely, protecting children in distress has been put under pressure by the HIV/AIDS pandemic which is overwhelming even the extended family and household systems. For example, the number of beneficiaries of the FCG grew from 245, 798 in March 2005 to 300, 119 in March 2006, an increase of 22%. Reasons attributed to the latter are varied, and include the changing emphasis on the scope of the grant. An audit in 2004 found that FCG was being utilized as a poverty alleviation strategy rather than a means to protect children. Moreover, in South Africa, there were already in 2004 533, 747 maternal orphans and 512, 684 double orphans. A total of 251 inter-country adoptions and 2, 256 domestic adoptions were registered during the period 2005/2006. Furthermore, the Department of Social Development Report (2006, p. vii) also found that children come to the foster care system when they are older than 7 years of age, 52% of foster children were 13 years or older and only 10% were younger than 7, and 8% older than 17.

Theme 2: *Employee Assistance Program (EAP)*

On this issue, respondents' responses varied in terms of depth of their understanding and articulation. However, all 10 agreed that that was an area that needed a lot of attention from the NGO Management side. On this note, The Department of Public Service and Administration (NDPSA), (1997) provides that the following eight *Batho Pele Principles* are a strategy to kick start the transformation of public service delivery, a part of enhancing participatory democracy and are applied to demonstrate a caring accessible and accountable service; namely, consultation, service standards, access, courtesy, information, openness, transparency and redress. Given the notion of *Batho Pele Principles* being a value statement of ethical and accountable or professional work that is committed to public service excellence, through the narrative analysis of the three themes all 10 participants could relate to the latter and all the Post-1994 South African gains. However, as Service Providers, the single most important and overarching burden as far as their situation is concerned is EAP. Since the provision of the latter has financial implications, it is noted that this is where the government of South Africa should take the lead, and lead by example. Furthermore, an encouraging observation is that internationally EAP is a management

function; also as a policy imperative it is locally in harmony with the intents of the 1996 Constitution of South Africa, namely, to improve the quality of health and life for all citizens

Theme 3: *Content of their OVC Program*

Mainly, the NGO OVC Program comprises psycho-social support for the children registered with them. This includes counseling services, aftercare (after school) and homework supervision for the children and a recreation club for school holidays and weekend activities. Through this club, children are also taken on different excursions. According to the OVC Program Manager, the bulk of the time is spent on training and supervising the care givers since all the programs are based in their respective local communities where all children originate from.

The United Nations Declaration of Commitment on HIV/AIDS implores countries to develop strategies to support OVCs as a means of alleviating the impact of the epidemic on children. Measures in this regard should include guaranteeing their equal access to education and other services, and shielding them from abuse and stigmatization, UNGASS (2006). OVC and the attendant management issues are most pressing in Sub-Saharan Africa. Almost 49 per cent of countries in sub-Saharan Africa rate their efforts of addressing the needs of OVCs as average or below-average. Among the 25 countries in Sub-Saharan Africa that have adopted national policies to deal with OVCs, only 21 had reduced or eliminated school fees for vulnerable children and set up community-based programmes to assist OVCs, UNGASS (2006). OVC statistics in selected Southern African Development Countries (SADC) reveal the following about orphaned children: 1 200 000 in South Africa, 1 200 000 in Zimbabwe, 710 000 in Zambia and 120 000 in Botswana, UNICEF (2006).

The latter, including the The 1997 White Paper on Social Welfare and related policy imperatives provide for a rationale for the study. Besides, given the ever-present need to monitor and evaluate the impact of our professional interventions, the overarching rationale for conducting and subsequently reporting on this study is to track how the OVC phenomenon trajectories have evolved over time in South Africa. These results are important because they represent an important contribution to the study of OVC Program Management in South Africa; being among the first qualitative studies to build on empirical foundation of knowledge using phenomenology for understanding issues associated with the phenomenon of OVC from the perspective of the Service Providers themselves.

CONCLUSION AND MANAGEMENT IMPLICATIONS

The study sought to investigate the role and challenges faced by the OVC Program Manager in improving the health and quality of life of affected children in Johannesburg, South Africa. Mainly, results reveal that in the light of the 2010 2.3 million children predictions alluded to earlier, this OVC program is a much needed service South Africans cannot have enough of. Its objectives are timely and noble, and the results on the ground speak for themselves. In the same vein, results point to a need for this NGO Management to consider the wellbeing of their respective employees as equally important in rendering this worthy cause sustainable.

Overall, harnessing wisdom on the future of this OVC Program, this NGO has opportunities to be among leaders in the field of OVC Program Management in South Africa and globally. Therefore, this paper concludes that failure on the part of the NGO Management to act swiftly on developing EAP might lead to institutional 'brain drain' whose repercussions the orphans and the entire country can ill afford. Furthermore, it is envisaged that when their envisaged EAP is embedded effectively within the corporate management systems, it may help pioneer a business culture dedicated to building the capacity of the NGO sector in South Africa and globally. It may well be that the implementation of the recommended EAP may serve as a model that could be adopted and adapted locally and internationally; given that the agenda of Hope Worldwide NGO is developmental and their strategic partners are international with an established office in South African. Besides, internationally EAP is a good management practice; and locally, it is a policy imperative that is in harmony with the intents of the 1996 Constitution of South Africa, namely, to improve the quality of health and life for all citizens, and in this case, this NGO's employees included. Thus, the challenge for Hope Worldwide South Africa management is finding a balance between investments in human resources and other investments in economic growth as a policy imperative critical in ensuring that trade-offs do not bias the human capital.

REFERENCES

- Adato, M., Carter, M.R. and May, J. (2006). Exploring poverty traps and social exclusion in South Africa using qualitative and quantitative data. *Journal of Development Studies*:42 (2), 226-247.
- Ainsworth, M., Beegle, K. and Koda, G. (2005). The impact of adult mortality and parental deaths on primary schooling in North Western Tanzania. *Journal of Development Studies*: 41 (3), 412-439.
- De Koker, C., De Waal, L. and Vorster, J.H. (2006). A profile of social security beneficiaries in South Africa. Stellenbosch: University of Stellenbosch.
- Department of Social Development (2006a). Report on Incentive Structures of Social Assistance Grants in South Africa. Pretoria: Government Printers.
- Department of Social Development (2006b). Linking Social Grant Beneficiaries to Poverty Alleviation and Economic Activity. Discussion Document. Pretoria: Government Printers.
- Department of Social Development (2003). Report on the Committee of Inquiry into a comprehensive system of social security for South Africa. Pretoria: Government Printers.
- Department of Social Development (1997). The White Paper on Social Welfare. Pretoria: Government Printers.
- Department of Public Service and Administration (1997). Eight Batho Pele Principles to Kickstart the Transformation of Service delivery. Pretoria: Government Printers.
- Development Research Africa (2004). Challenges faced by households in caring for orphans and vulnerable children. Pretoria, DRA.
- Jackson, H. (2002). AIDS in Africa: A continent in crisis. SAFAIDS, Zimbabwe.
- Katz, C. (1960). Foster care as a form of placement. University of Witwatersrand Thesis, Johannesburg.
- Skweyiya, Z (2006). Budget Speech of the Minister of Social Development. <http://www.welfare.gov.za/media/2006/march/note.htm>
- Phiri, C.M. and Perron, B.E. (2012). Health implications of chronic homelessness: lived experiences of adult men and women at a community in Gauteng province, South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, September (Supplement 2), 160-173.
- United Nations General Assembly (UNGASS) (2006). Report on the global AIDS epidemic, 2-6. New York: United Nations.
- UNAIDS (2004). Children orphaned by AIDS – frontline responses from Eastern and Southern Africa, <http://www.unaids.org>.
- UNAIDS/UNICEF/USAID (2004). Children on the Brink: A joint report of new orphan estimates and a framework for action. New York, UNICEF. www.africa.hopeww.org

CHALLENGES OF ENTREPRENEURS OF SMALL- AND MEDIUM-SIZE COMPANIES IN THAILAND WITH FOCUS ON GENDER INEQUALITIES

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ABSTRACT

An investigation among 156 owners of small- and medium-size companies in the Bangkok area has been performed to assess the difficulties in starting and operating a business. The conclusion of previous studies has suggested that there are differences in the challenges facing male and female entrepreneurs. The present survey, therefore, put special emphasis on gender inequalities. In contrast to previous studies, however, no such differences were found. Several common obstacles were nevertheless identified for which recommendations are provided.

INTRODUCTION

A study on women entrepreneurship of the Organisation for Economic Co-operation and Development (OECD) (2004) concluded that female entrepreneurs create new jobs for themselves and others but by working differently than men, also provide society with different solutions to management, organization and business problems as well as to the exploitation of entrepreneurial opportunities. However, for women there are many additional obstacles than for men. Women's opportunity to operate small and medium enterprises is found problematic not only in developing countries but also in developed countries.

U.N. Women and International Labour Organization (ILO) policy brief (2012) notes that, in the area of women's economic and human rights, their contributions and priorities have been largely overlooked. They are more likely to be unemployed than men, dominate the unprotected informal sector, are more likely than men to be in part-time formal employment in most high income regions, spend more time than men in unpaid care-work globally, have lower levels of productivity and earn less than men for work of equal value and are poorly represented in public and corporate economic decision-making (p.3).

Women from all around the world experience difficulties both in the beginning phase of starting a business as well as during business operation, especially from their family responsibilities as daughter, wife, or mother. The OECD report (2008) concludes that cultural beliefs about gender (so called gender beliefs) are the component of gender stereotypes that contain specific expectations for competence and knowledge acquisitions. Additionally, it is this component with its specific expectations of competence that presents special problems for gender equality. The OECD report illustrates that gender beliefs are also cultural scheme for interpreting or making sense of the social world. Thus they represent what we think "most people" believe or accept as true about the categories of "men" and "women". In most countries men are widely believed to be more competent than women, except when performing feminine tasks. As we will see below, substantial evidence indicates that entrepreneurship is stereotyped as a "masculine task" (OECD 2008).

This argument also fits the description about perspective of men and women in Southeast Asia regarding to the competence to do business where men have been dominating and playing important role in business society for decades. Women were expected to take care of families and children while men were

operating businesses. Even though women have historically participated in business role at modest levels compared to men, the number of women entrepreneurs has been increasing significantly compare to men (Piperopoulos 2012). Despite a generally admitted scarcity of theories, knowledge and statistical data both from academic research studies and from national and international research and policy bodies on female entrepreneurship, in the last two decades, women-owned businesses are increasingly becoming a significant part of local and national economies. (Adesua-Lincoln 2012). Many women have been forced into alternative avenues of generating an income, with a greater number of women setting up business.

The change of culture and behavior toward women plays an important role in this new development of women entrepreneurship. Currently, women obtain equal opportunity to access to higher education and to become business owners. Furthermore, business society accepts that women are competent just like men. However, women in some countries are still held back by conservative mores that consider women incompetent at business and should instead focus on traditional female roles such as familial responsibilities. In additional, women need to be fully engaged in efforts to shape responses to these interfacing crises, both in terms of influencing the design and assessing the impacts of recovery packages from a gender perspective, and have an equal voice with men at all levels of economic decision-making (UN Women-ILO 2012).

Even in many E.U. countries, women continue to face traditional views similar to the view of women in Southeast Asia (EU Commission 2008), which lead to great difficulties in balancing the family responsibilities with work in fast-moving and highly competitive sectors. Such types of work expect long and flexible working hours and demand to be up-to-date on technical developments and market opportunities.

The Ministry of Industry of Thailand issued Ministerial Regulation in 2002 that classified SME into 4 sectors; manufacturing industry, wholesale industry, retailing industry, and service industry. Furthermore, a definition of each chapter is also defined.

Industry	Small Enterprise (S)	Medium Enterprise (M)
Manufacturing Industry	Enterprise which corresponds to any of the following: with employees of up to 50 or with assets of up to 50 million baht	Enterprise which corresponds to any of the following with 51-200 employees or with assets of no less than 50 million baht and up to 200 million baht
Wholesale Industry	Enterprise which corresponds to any of the following: with employees of up to 25 or with assets of up to 30 million baht	Enterprise which corresponds to any of the following: with 26-200 employees or with assets of no less than 30 million baht and up to 50 million baht
Retailing Industry	Enterprise which corresponds to any of the following: with employees of up to 15 or with assets of up to 30 million baht.	Enterprise which corresponds to any of the following: with 16-150 employees or with assets of no less than 30 million baht and up to 60 million baht
Service Industry	Enterprise which corresponds to any of the following: with employees of up to 50 or with assets of up to 50 million baht	Enterprise which corresponds to any of the following: with 51-200 employees or with assets or no less than 50 million baht and up to 200 million baht

Source Asia Foundation (Thailand) 2012.

Thailand's economy has been driven by small and medium enterprises (SMEs). The estimated number of SMEs in 2012 was nearly 3 million, which is about 99% of all size enterprises in Thailand. However, there are no numbers available on the gender of the entrepreneurs. Therefore, the number of women entrepreneur is not identified. Unlike before, Thai society is now more open to accept women to do businesses. Under the assumption that women experience some difficulties to do business more than men in the same businesses, this paper focuses on the constraints on women entrepreneurship that contribute participation in Thai economy and aims to identify and understand constraints to women's full participation in economic the growth. The study is

concluded with recommendations on how to improve women's capacity to fully play their role as economic actors.

LITERATURE REVIEW

There are many studies that show that there are many obstacles that women have faced in doing businesses. The main difficulties can be found in many forms regardless the development of countries. Women in Thailand, or other developing country likes Laos, often share the common challenges with women in certain European Union countries for instance: difficulty to start a new business, less opportunity to access finance, lower personal finance asset, sex discrimination and entrepreneurship (Loscocco & Leicht 1993). Studies on women entrepreneurs show that women have to cope with stereotypic attitudes on a daily basis. Business relations as customers, suppliers, banks, etc. constantly remind the entrepreneur that she is different, sometimes in a positive way such as by praising her for being a successful entrepreneur even though being a woman. Employees tend to mix the perceptions of the manager with their images of female role models leading to mixed expectations on the woman manager to be a manager as well as a "mother". The workload associated with being a small business manager is also not easily combined with taking care of a family.

Bruni, Gherardi and Poggio (2004) view that Studies conducted in the majority of the Western countries identify three main types of barrier against female entrepreneurship. First, the socio-cultural status of women, which identifies the primary role of women with family and domestic responsibilities and reduces the credibility of women intent on setting up businesses in a variety of ways. Secondly, the access to networks of information and assistance, which are often the main source of information and contacts, but which equally often comprise more or less overt mechanisms of gender exclusion. Finally, access to capital; whether women entrepreneurs apply to an institutional financier (a bank, a finance agency), a friend, a relative or even her spouse, they are likely to come up against the assumption that "women can't handle money".

In the European Union (EU), a study of the EU Commission on women innovators and entrepreneurship in the EU in 2008 concludes that woman's obstacles to innovative entrepreneurship composed of 3 types:

1. **Contextual obstacles:** educational choices, including traditional views and stereotypes about women involving science and innovation;
2. **Economic obstacles:** innovation sector requiring substantial investment and women being seen less credible financially than men;
3. **Soft obstacles:** lack of access to technical, scientific, general business networks, business training, role models, and entrepreneurship skills.

Even though number of female entrepreneurs around the world has been rising, they are still facing many unique challenges and obstacles when they play in a male-dominated field.

METHODOLOGY

In order to get better understanding of women's role in Thai SMEs, the interview of 156 SMEs from both male and female who own SMEs in Bangkok and its surrounding provinces has been conducted. The survey covers basic information and the operation of the enterprises, financial constraints and access to capital / credit issues associated with exporting, ability to make a profit, and complete a business goal in the future. In addition, this survey explores relationship of the selected enterprises with other business organizations as well as government agencies. The overall challenges, business experience corruption, safety, security and personal data also included in the result of this paper. The results of this study as well as recommendations are presented herewith.

Fundamental Corporate and Business Information

For business profile and operations, of all 156-business owners, the number of male owners was 45.5% and number of female owner was 54.5%. In addition, Chart 1 shows that there were 33.3% male and 26.3%

female who own and run their businesses. Regarding to the business acquisition, it is found that 21% of male and 22.3 % of female were self-established with partner(s) (see Chart 2). And 19.5% of male and 26% of female in this sample group began their business operations between years 1998-2007.

Chart 1 Number and percentage of the interviewees by position.

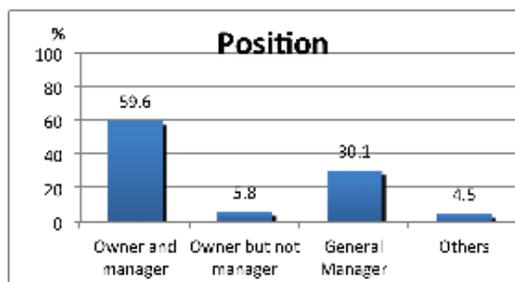
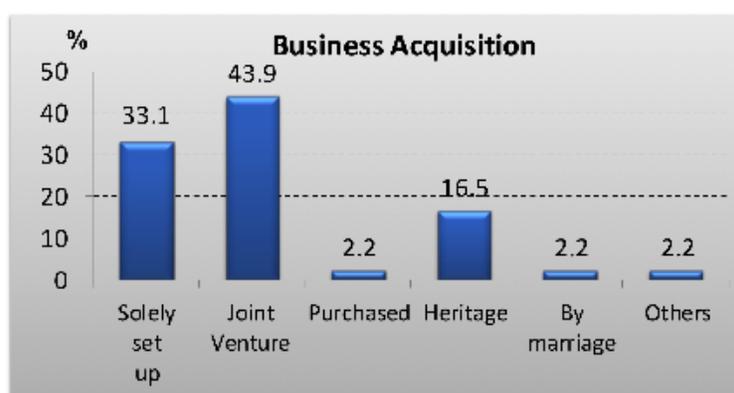


Chart 2 Nature of business set up.



The first rank of the primary sector of the interviewees in both genders is wholesale and retail trade. Furthermore, the legal status of the business shows that 21.4 of male and 20.8% of females in the interviewee group registered as a limited company as shown in Table 1 below.

Table 1 Number and percentage of the interviewees by the legal status.

Business status	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
No legal status	3	1.9	1	0.6	4	2.6
Sole proprietorship	6	3.9	13	8.4	19	12.3
Partnership	11	7.1	16	10.4	27	17.5
Corporation	33	21.4	32	20.8	65	42.2
Public listed corporation	18	11.7	21	13.6	39	25.3
Total	71	46.1	83	53.9	154	100.0

This survey also finds that females who owned or co-owned these companies accounted for the number of 84.5% of the samples (see Chart 3). Majority of the female interviewees do not want to invest more times into their businesses (see Table 2).

Chart 3 Number of women who own or co-own small or medium companies.

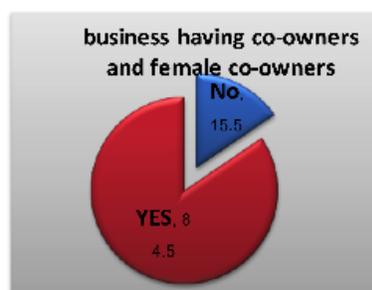


Table 2 Number and percentage of the interviewees who would like to invest more times to their business.

Intention	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
YES	27	17.3	24	15.4	51	32.7
NO	44	28.2	61	39.1	105	67.3
Total	71	45.5	85	54.5	156	100.0

For labor inputs and location, the samples employ 30 labors on average and half of them being women. Regarding the possession and rental status of the business location, 55% of own and 40.6% rent their business location. It is found that the possession and rental status of the business location seem to be indifferent between both genders. They stated low risk of a business premises or being expropriated by the government. The majority of the interviewees share their opinions that they do not need for legal assistance or official aid and support in the rental or purchase of the business location.

The number of 42.4 % of female interviewees does not find any difficulty in finding a good location of business as shown in Table 3. This demonstrates that women do not find it is more difficult to conduct the business than men. Additionally, the average of working hour per day and week compares to men and women slightly less than men, which indicates the capacity to work closely to that of men.

Table 3 Number and percentage of the interviewees by the difficulty of female owner in looking for the appropriate place of business.

Comment	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
More difficult	17	11.0	12	7.7	29	18.7
Not more difficult	53	34.2	73	47.1	126	81.3
Total	70	45.2	85	54.8	155	100.0

In regards to clients and suppliers, it was determined that a majority of their sales in 2011 were in Bangkok and surrounding provinces rather than remote areas. And the sales were to customers rather than wholesales. Most of them found their clients through contact with similar businesses. The languages that they use to do business with their clients are Thai and English. The main channel to obtain customers comes from referral from the same type of business. The average proportion of their foreigner clients is 29.13%, the average proportion of female clients is 43.75% and female supplier is 36.79%.

On the survey questions relate to technology, the result yields that 99.4% of the interviewees use computer and IT for accounting and business records as they view that computers and IT play important role to the improvement of their businesses. However, 0.6% of the samplings think the computer and IT are too expensive.

Pursuant to the questionnaire about sustainability and environmental friendly questions, the interviewees find that local customers are concerned about sustainable environment and friendliness. Therefore, most of them change their production and manufacturing as well as services to be more environmental friendly. However, they have yet obtained any type of certification of the environmental sustainability.

Financial and access to capital / credit

The majority of the interviewees have checking or saving account with major commercial banks. The source of start-up capital for most female uses personal or family savings, shown in Table 4, gifts or inheritance and female has fewer attempts than most males to borrow funds in and out of the financial system. Furthermore, the interview finds that female owners do not need financial help from others which shows that women are ready to invest from their saving more than men. Both male and female samplings agree that too long and difficult loan application process and the high interest rate are the challenge of borrowing funds.

Table 4 Number and percentage of the interviewees by the source of capital for starting business.

Source of Capital	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Individual or household savings, gift or inheritance	62	42.8	67	46.2	129	89.0
Savings from family, friends or community member	-	-	1	0.7	1	0.7
Remittances from migrants working abroad	3	2.1	9	6.2	12	8.3
Borrowed from family, friends or community member	5	3.4	6	4.1	11	7.6
Borrowed from moneylender	2	1.4	3	2.1	5	3.4

Export issues

Most of the interviewees do not export (see Table 5,6 and 7). However, some of them export their goods within Southeast Asia region. One of the reasons that they do not focus on exporting their goods to other countries is the difficulty to find qualified assistance in writing internal legal contracts/documents. It is found that men and women are alike in facing export difficulties. And the challenge in export is completing the administrative process while most of them stated that corruption do not create a difficulty for export.

Table 5 Number and percentage of the interviewees by convenience in exporting goods (exporter only).

Convenient to export	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Very difficult	5	7.7	5	7.7	10	15.4
Difficult	8	12.3	17	26.2	25	38.5
Convenient	13	20.0	10	15.4	23	35.4
Very convenient	2	3.1	5	7.7	7	10.8
Total	28	43.1	37	56.9	65	100.0

Table 6 Number and percentage of the interviewees by the problem of the corruption, regarding to the bribery of customs officer (exporter only).

Problem regarding	Male	Female	Total
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bribery with customs officers	Amount	%	Amount	%	Amount	%
Severe	5	7.7	7	10.8	12	18.5
Moderate	4	6.2	7	10.8	11	16.9
Minor	5	7.7	5	7.7	10	15.4
No	14	21.5	18	27.7	32	49.2
Total	28	43.1	37	56.9	65	100.0

Table 7 Number and percentage of the interviewees by the most challenging of export (exporter only).

Most challenge of export	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Completing the administrative process	10	15.4	15	23.1	25	38.5
Dealing with export officials	5	7.7	8	12.3	13	20.0
Finding international clients	10	15.4	14	21.5	24	36.9
Finding wholesalers/intermediaries	2	3.1	3	4.6	5	7.7
Spoilage/breakage of goods	4	6.2	6	9.2	10	15.4
Theft of goods	1	1.5	2	3.1	3	4.6
Time delays	4	6.2	4	6.2	8	12.3
Cost of export process	9	13.8	8	12.3	17	26.2
Informal payments and corruption	2	3.1	2	3.1	4	6.2
International contracts/law (including drafting and enforcement)	8	12.3	5	7.7	13	20.0
Issues related to currency conversions and fluctuations	6	9.2	5	7.7	11	16.9
Language barriers	8	12.3	2	3.1	10	15.4
Cultural differences	2	3.1	2	3.1	4	6.2
Others	-	-	1	1.5	1	1.5
Total	28	43.1	37	56.9	65	100.0

Profitability and Future plans/Aspiration

Two major challenges include finding new customers and increase sales. Table 8 illustrates that most of the businesses were profitable in the year prior to the survey. The business owners plan to increase size of their businesses and expand into other main provinces in Thailand.

Table 8 Number and percentage of the interviewees by the next three years business plan.

Business growth plan	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Plan to increase the size of operations	42	27.5	44	28.8	86	56.2
Will continue operating at present size	25	16.3	35	22.9	60	39.2
Plan to reduce the size of operations	3	2.0	4	2.6	7	4.6
Total	70	45.8	83	54.2	153	100.0

Relationships with business and government organizations

This survey finds that the female interviewees have one-to-one meetings with business people in the same industry more than men. This result suggests that women have stronger interpersonal skills. The male interviewees prefer to socialize with other business people in associations, organizations, informal group meeting or networking events. Additionally, men also enjoy socializing with people in the various social occasions such as parties and weddings more than females. There is small number of women who join business association or organization compared to men.

Table 9 Number and percentage of the interviewees who are the members of association or business organization.

Membership	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Membership in business association or professional organization						
Yes	38	25.2	43	28.5	81	53.6
No	30	19.9	40	26.5	70	46.4
Total	68	45.0	83	55.0	151	100.0

Both male and female owners have obtained useful information, seminars and trainings from the associations or business organizations to improve and develop their businesses and personal business skill (see Table 10). However, they want those business/entrepreneur organizations to improve access to information about customers via such organization's email or website.

Table 10 Number and percentage of the interviewees by the services that the interviewees expect an improvement from the association or the business organization.

Services needed to be improved	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Information/trainings for improving business operations	18	12.7	20	14.1	38	26.8
Information/trainings about the use of technology	11	7.7	16	11.3	27	19.0
Information/trainings about government regulations, policies or taxes	12	8.5	16	11.3	28	19.7
Improving access to/information about suppliers	11	7.7	13	9.2	24	16.9
Improving access to/information about clients	23	16.2	22	15.5	45	31.7
Collective bargaining with either suppliers or clients	13	9.2	18	12.7	31	21.8
Improving access to financing	16	11.3	5	3.5	21	14.8
Advocacy/lobbying to the public sector	9	6.3	4	2.8	13	9.2

The result show that to get the support of the business of government, the sampling group does not believe that the government is behind them. Not only do they believe the government agencies are unsupportive towards SMEs but the government officials also are not accessible for the SMEs in order to improve business development. This concludes that the involvement of the SMEs with government and its agencies is inadequate at this time. The seminars and trainings that they have received from the government agencies are related skill trainings (such as accounting, management, marketing, and advertising etc.), which the business owners to be quite useful for their businesses.

Table 11 Number and percentage of the interviewees by the degree of support from the Thai Government, in the viewpoint of the interviewees.

Supportive Level	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Very supportive	3	2.0	4	2.6	7	4.6
Somewhat supportive	25	16.6	32	21.2	57	37.7
Indifferent	33	21.9	41	27.2	74	49.0
Unsupportive/ hostile	8	5.3	5	3.3	13	8.6
Total	69	45.7	82	54.3	151	100.0

Corruption, safety and security

The survey provides that the majority of both female and male confirm that bribery is a serious problem to their business. The samplings do not agree that women trend to pay for bribery more than men. Women have more concerns about the safety of the business than men for instance hours of work (e.g., not working after dark), travel (e.g., traveling less or not traveling unaccompanied), and physical security investments (locks, window bars, alarms) more than men accept for human security investments (guards or protection payments). The samples stated that they are somewhat worried about the physical security of their business due to crime and/or theft but they hardly pay to gangs, organized crime organizations to ensure the safety and security of their business. Additionally, women seem not to be more worried than men. (See Table 13 and 14).

Table 13 Number and percentage of the interviewees by opinion of the interviewees for the impact of corruption to the business and the gender of the business operators.

Corruption problems	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Opinion to the serious level of corruptions						
Severe	24	15.4	24	15.4	48	30.8
Moderate	13	8.3	18	11.5	31	19.9
Minor	17	10.9	19	12.2	36	23.1
No problems	15	9.6	21	13.5	36	23.1
Decline to answer	2	1.3	3	1.9	5	3.2
Total	71	45.5	85	54.5	156	100.0
Opinion to the case where female business operator should pay more bribery than male business operator						
Yes	10	6.4	13	8.3	23	14.7
No	59	37.8	71	45.5	130	83.3
Decline to answer	2	1.3	1	.6	3	1.9
Total	71	45.5	85	54.5	156	100.0

Table 14 Number and percentage of the interviewees by the affect received from the security concern in doing business.

Concern and impact	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Hours of work (e.g. not working after dark)						
Yes	21	13.9	25	16.6	46	30.5

Concern and impact	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
No	49	32.5	56	37.1	105	69.5
Total	70	46.4	81	53.6	151	100.0
Travel (e.g. traveling less or not traveling unaccompanied)						
Yes	16	10.7	20	13.3	36	24.0
No	54	36.0	60	40.0	114	76.0
Total	70	46.7	80	53.3	150	100.0
Physical security investments – locks, window bars, alarms						
Yes	34	22.5	37	24.5	71	47.0
No	36	23.8	44	29.1	80	53.0
Total	70	46.4	81	53.6	151	100.0
Human security investments – guards or protection payments						
Yes	29	19.2	27	17.9	56	37.1
No	41	27.2	54	35.8	95	62.9
Total	70	46.4	81	53.6	151	100.0

Overall challenges

As Table 15 indicates, the majority of both male and female view that the market access and relationship with customers are the most concerned the challenges of doing business followed by recruitment and training. The interviewees see that there is no different in difficulty of women to manage a successful business compare to men in the same type of business. This is because both men and women have skills in doing business as they have equal opportunity to obtain their knowledge and skill from training and seminar. Regarding to the difficulty of female business operators success in business in comparison to male business owners in the same industry, the result of this interview shows that the female interviewees do not think that they experience more difficulties than men.

Table 15 Number and percentage of the interviewees by the challenge for doing business.

Challenges	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Physical space/premises	12	7.9	9	5.9	21	13.8
Employee hiring and training	36	23.7	31	20.4	67	44.1
Business licensing and administrative processes	14	9.2	13	8.6	27	17.8
Access to capital	20	13.2	21	13.8	41	27.0
Access to technology/assets	15	9.9	12	7.9	27	17.8
Access to markets/relationships with clients	47	30.9	56	36.8	103	67.8
Access to	19	12.5	25	16.4	44	28.9

Challenges	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
supplies/relationships with suppliers						
Export processes	12	7.9	17	11.2	29	19.1
Transportation of products	10	6.6	13	8.6	23	15.1
Private sector relationships (formal and informal)	7	4.6	2	1.3	9	5.9
Public sector relationships	6	3.9	8	5.3	14	9.2
Public sector relationships						
Access to information	6	3.9	9	5.9	15	9.9
Corruption, informal payments	8	5.3	10	6.6	18	11.8
Physical and personal security	1	0.7	6	3.9	7	4.6
Support from family members	3	2.0	3	2.0	6	3.9
Insufficient time due to professional demands	2	1.3			2	1.3
Insufficient time due to personal demands	1	0.7	2	1.3	3	2.0
Others	1	0.7	2	1.3	3	2.0
Total	70	46.1	82	53.9	152	100.0

Table 16 Number and percentage of the interviewees by the opinion of the interviewees in regard to the difficulty of female business operators to success in business, comparing to male business operators in the same industry.

Difficulty in business success of female business operators	Male		Female		Total	
	Amount	%	Amount	%	Amount	%
Much more difficult than for men	4	2.6	3	1.9	7	4.5
Somewhat more difficult than for men	20	13.0	19	12.3	39	25.3
No difference	37	24.0	54	35.1	91	59.1
Somewhat easier than for men	7	4.5	6	3.9	13	8.4
Much easier than for men	2	1.3	2	1.3	4	2.6
Total	70	45.5	84	54.5	154	100.0

CONCLUSION

The majority of entrepreneur has knowledge about laws and regulations as well as the Government's policy toward to doing business and trade for instance the corporate income tax rate reducing since the year 2011 and a limited company which incomes less that 1.2 million baht per year enjoys corporate income tax exemption. In additional, the registration of a new limited company has become easier since 2010 onwards.

The result of the survey finds no specific challenge that poses a difficulty for females conducting business in comparison to males. In fact, the conclusion from the survey indicates that both male and female entrepreneurs have equal opportunities in conducting business. However, major areas of challenges include the market access and the relationship with customers. Other challenges that create concerns to the SMEs are the access of information and trainings relate to doing business of the SMEs, corruption as well as participation in

government policy-making regarding SMEs. In relation to the above challenges, this report provides some recommendations as follow:

- Improving business skills for instance marketing, business communication, branding and networking events.
- Encouraging female entrepreneurs to participate in business organization such as chamber of commerce and to set up women business association to help each other to do business and create a good platform for women to have stronger voice in business world.
- Requesting that the Government and its agencies relate to SMEs to provide an opportunity to the SMEs to participate in policy making and access to activities arranged by the Government agencies.
- Involving government agencies to pay close attention to SMEs in order to overcome challenges and to develop ability of the SMEs to improve and expand their businesses.

REFERENCES

Lincoln, A. (2011). Assessing Nigerian female entrepreneur's access to finance for business start-up and growth. *African Journal of Business Management*, 5(13), 5349.

Bruni, A., Gherardi, S. & Poggio, B. (2004). Entrepreneur-mentality, gender and the study of women entrepreneurs. *Journal of Organizational Change Management*, 17 (3), 256 – 268.

Asia Foundation (Thailand) (2012). Evaluating Business Environments to Foster Access to Trade and Growth of Women's SMEs in Thailand Economies, 5.

European Union Commission (2008). Evaluation Policy: Promotion of Women Innovators and Entrepreneurship.

Loscocco, K. A., & Leicht, K. T. (1993). Gender, work-family linkages, and economic success among small-business owners. *Journal of Marriage and the Family*, 875-887.

OECD (2004). Women's Entrepreneurship: Issue and Policies, presented at the 2nd OECD Conference of Ministries Responsible for Small and Medium-Sized Enterprises (SMEs), 5.

Panagiotis Piperopoulos (2012). Ethnic female business owners: more female or more ethnic entrepreneurs. *Journal of Small Business and Enterprise Development*, 19 (2), 195.

UN Women and International Labour Organization (2012). Policy Brief on Decent Work and Women's Economic Empowerment: Good Policy and Practice, 3.

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THE CONCEPT OF A CULTIVATION PLAN IN SOLVING IRREGULAR FLOW OF CASSAVA SUPPLY

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ABSTRACT

The lack of coordination among small-scale cassava growers and cassava processing plants causes irregular flow of cassava supply. The variations within the flow disturb processing operations and ultimately lead to customer dissatisfaction. In this study, we proposed the concept of a cultivation plan, which is composed of a crop growth model and a mathematical program. The estimation of cassava growth was simulated using DSSAT-GUMCAS for different planting dates and cultivars. Then, a mathematical model is developed and applied to simulated growth in order to select cultivar, planting periods and corresponding harvest windows. To estimate the benefit of the model, the results of uncoordinated cultivation and collaborative cultivations are compared. It is found that the proposed cultivation plan results in higher cassava production by as much as 24 421.2 Mg. In addition to this, supply overage is also prevented. This formulation could also reduce the loss of cassava production due to rapid deterioration of cassava root.

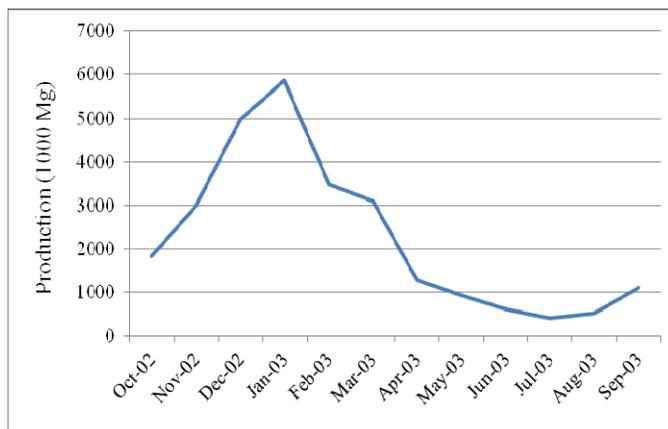
INTRODUCTION

Recently, the agri-food supply has been gaining a good deal of public attention. Similar to other supply chains, the agri-food chain is a network of organizations working together using different processes and activities in order to satisfy customers' demands. One of the central differences between agri-food and other supply chains is that the agri-food supply chain often characterized by their limited shelf life, as well as high supply seasonality and uncertainties. In this sense, the agri-food supply chain is more complex and harder to manage than other chains (Ahumada and Villalobos 2009). Besides these factors, the number of suppliers in this industry is high especially in developing countries where raw materials are produced. One food mill may have more than thousands of farmers supply agricultural products to the mill. Hence, attempting to coordinate suppliers whose operations are reliant upon unpredictable factors in nature is all the more difficult. While processors are responsible for their capacity and inventory management, the quality and quantity uncertainty of raw material can affect their capacity utilization. A production and procurement plan of a food mill that does not take into account the nature of agricultural production is likely to cause supply overage in some periods of the year, while producing shortages in other periods. Both supply overage and shortage can harm quality and quantity of agricultural products. When the raw material flow exceeds the capacity of the processor, it usually reduces the freshness and yield of the products and increases operating waste. Likewise, under capacity operation causes high per-unit fixed costs for the processor. Therefore, manufacturing must have a well-thought-out procurement plan in order to minimize their waste or non-value-added activities.

To state the important of collaborative planning, in this study we investigate a case of a cassava starch factory that suffers from uncoordinated incoming main raw material, cassava root. Due to its drought tolerance and production cost, the crop widely attracts growers in the Northeast of Thailand. The average land area to plant cassava ranges from 1.0 to 5.75 ha (Ratanawaraha et al. 2000), which is categorized as small-scale farm. Hence, one starch factory might engage with more than thousands of growers in order to fill up their production capacity. And because the cultivation plan of each farmer does not take into account processing plan of the factory, the factory often faces cassava supply fluctuation. Although cassava can be planted all year in Thailand, generally, the crop is grown in the early rainy season (March-June) and the late rainy season (October-November). The majority of the famers (about 23-31%) plant the crop in May, followed by 10-20% and 11-17%

in April and June, respectively. Another 10-20% is planted during October or November, at the end of the rainy season (Ratanawaraha et al. 2000). As indicated in Figure 1, cassava production tends to rise from November – February and tends to be low in other periods. That is because farmers grow and harvest cassava approximately at the same time. As a result, during November-February, factory experiences are cluttered with cassava roots, while in the other periods, such factories face a dearth, the consequence of which is that commonly each factory seeks raw material supply further away.

Figure 1. Cassava production in the Northeast of Thailand during October 2002-September 2003



The cassava supply overage directly affects the quantity and quality of cassava starch. If the cassava supply cannot be promptly processed after harvested, cassava root will suffer due to its rapid perishability (Iisamah 2004) especially during the cluttered period. Physiological deterioration often becomes apparent 24 hrs after the harvest (Richard 1985), and subsequently followed by microbial deterioration within 5-7 days (Jekayinfa and Olajide 2007). The prompt processing of cassava should, therefore, begin, soon after harvest (Jekayinfa and Olajide 2007). This situation leads to substantial quantitative and qualitative post-harvest losses of the roots causing high production, and processing risks. The rapid post-harvest deterioration of cassava restricts the storage potential of the fresh root to a few days (Wenham 1995). In addition to direct the physical loss of the crop, postharvest deterioration causes a reduction in root quality, which leads to price discounts and contributes to economic losses –both those directly felt by the farmer and indirectly by the mill. Hence, the short shelf-life of cassava has played a major role in the evolution of cultural and post-harvest management practices. In the past, to avoid losses from root deterioration, cassava starch factories would often host decentralized, small-scale processing nearby the production areas to ensure a daily supply of raw material. Fresh roots were generally processed on the day they arrive at the facility and it is rare to find industries that have storage facilities (Wenham 1995). However, as the process capacity expands (as it has done), the processor needs a large production area and a well organized supply procurement plan to supply fresh roots to the factory.

To reduce the problem of deterioration due to overage cassava supply, such a factory could solve their capacity problem by asking cassava farmers to leave the crop unharvested until the processing time approaches. The plant will be without deterioration for a year until the processing time. However, this way of avoiding loss will cause the roots stay in the soil beyond the period of optimal root development. This practice comes at a high cost of land because land is occupied and unavailable for further agricultural production. Likewise, roots lose some of their starch content and palatability declines as roots become more fibrous (Wenham 1995). To get a maximum return, the crop should be harvested at the right time. If harvested early, the yield will be low and the root still be fibrous. The right time of harvest also depends on the cultivar (Evangeliio 2000). Hence, to set the cultivation plan, the growers should also be advised to plant the cultivar along with planting of the root during harvest time such that entire cassava production of the chain is optimized.

The problem of inadequate supply of raw cassava for industrial cassava processing also happened in Nigeria (Ugwu and Okereke 1985). In that country, the cultivation of cassava root was from not coordinated among growers or with the factories. The cassava growers in Nigeria harvested a variety of roots and had no clearly formulated plan with the cassava processors. The wide quantity variation of the fresh root of cassava

supply caused instability and irregular flow of the cassava products. This impacted the overall competitiveness of Nigeria's growers on the market and took a toll on the profitability of the processing operations. Reliability and regularity of raw material supply is of vital importance to satisfy customer requirements. Erratic flow of raw material caused by a number of small-scale independent producers to agro-based industries is likely to draw serious implications for the next supply chain units. If the cassava processors have control over the planting and harvesting period, the quality and quantity of cassava supply is ensured. At that time, Ugwu and Okereke also proposed that cassava growers should be organized into co-operative units through administrative arrangements of both cassava processors and producers. Companies should provide technical advice and supply production inputs to the participating growers in return for arrangements of time of planning and harvesting. Both parties would benefit from the scheme. Although their suggestions are similar to ours, they did not outline in detail a harvesting plan.

The objective of this study is to set a collaborative cultivation plan for cassava growers and a mill such that cassava production is optimized under processing capacity constraints. The cultivation plan concept used here is adapted from Grunow et al. (2007) and Piewthongngam et al. (2009). Although, originally the concept was aimed to solve similar problems in the cane industry, it is highly applicable to cassava inadequate supply problems. Their cultivation planning is stated as a long-term coordination effort between growers and processors, which determines the cultivation time, the corresponding prospective harvesting time window for each field and the selection of cultivars such that overall production is optimized. The concept is aimed to prevent excessive supply of raw material in one period and shortage in others.

MODEL AND NUMERICAL CASE STUDY

In order for both parties to benefit from this concept, planners should be able to visualize cassava growth for each field and the effects of planting times, harvesting times, and other environmental factors (e.g., soil type, temperature, rainfall) on cassava growth. Cassava growth model is a good candidate tool to perform yield simulation task. The growth model divides growth of cassava into 3 phases: 1) planting to emergence; 2) emergence to first branching; 3) first branching to maturity or final harvest (Matthews and Hunt 1994). Each phase differs in terms of the interactions of plant physiology and its environmental factors (e.g., solar radiation, temperature, organic matters, rainfall). The growth simulation step is necessary because different cultivar responses to environmental factors operate differently (Connor et al. 1981). Likewise, growth stages of cassava planted in different dates will be in different environments. As a result, different planting dates also yield different growth rates of the plant (Keating et al. 1982). Hence, in order to determine a collaborative cultivation plan, a planner should be able to estimate growth of each cultivar in different environment. In this study, DSSAT-GUMCAS is used to simulate cassava growth. To set the cultivation plan, a mathematical model is constructed and applied to simulated cassava growth. The details of the proposed mathematical model are described next.

Mathematical Model

Notations

i, j, k, t	Index of planting date, growing region, cultivars, harvesting period,
I	Number of planting dates, $i = 1, 2, 3, \dots, I$,
J	Number of growing regions, $j = 1, 2, 3, \dots, J$,
K	Number of cultivars, $k = 1, 2, 3, \dots, K$,
T	Number of harvesting periods, $t = 1, 2, 3, \dots, T$,
P	Price received by cassava growers (THB kg ⁻¹),
C_k	Production cost of growing cultivar k (THB ha ⁻¹),
\tilde{Q}_{ijkt}	Estimated yield of the cassava planted at date i in region j with cultivar k and harvested in period t (kg),
L_{ijkt}	Land area allocated to plant cassava at date i in region j with cultivar k and to be harvested in period t (ha),
$Land_j$	Maximum land area available for region j (ha),
CAP	Maximum cassava processing capacity for a period (kg).
Objective function	

$$\text{Maximizing } \sum_{i=1}^I \sum_{j=1}^J \sum_{k=1}^K \sum_{t=1}^T (P\tilde{Q}_{ijkt} - C_k L_{ijkt}) \quad (1)$$

Subject to

$$\sum_{i=1}^I \sum_{k=1}^K \sum_{t=1}^T L_{ijkt} \leq Land_j \text{ for } \forall j \quad (2)$$

$$\sum_{i=1}^I \sum_{j=1}^J \sum_{k=1}^K \tilde{Q}_{ijkt} L_{ijkt} \geq 0.8 \times CAP \text{ for } \forall t \quad (3)$$

$$\sum_{i=1}^I \sum_{j=1}^J \sum_{k=1}^K \tilde{Q}_{ijkt} L_{ijkt} \leq CAP \text{ for } \forall t \quad (4)$$

$$L_{ijkt} \geq 0 \text{ for } \forall i, j, k, t \quad (5)$$

The objective of maximizing overall profit for the contracted suppliers is expressed in (1). Constraint (2) ensures that the amount of cassava grown land would not exceed the maximum area in each region. The constraint (3) guarantees that in each harvesting period, at least 80% of maximum capacity of the mill should be satisfied. Constraint (4) ensures that all harvested cassava will not exceed the maximum capacity of the mill. Constraints (5) guarantee nonnegative value of L_{ijkt} .

Numerical Case Study

To illustrate the advantages of this suggested framework, let us consider a case of a cassava processing plant located in Nakhon Ratchasima province, Northeastern Thailand. The plant has cassava supply area of 52,000 ha. These cassava supply area is composed of 4 soil series, Si Khiu, Chum Phuang, Kula Ronghai, and Khon Buri. Each soil series is assumed to have cassava land area of 12 000, 13 600, 12 800, and 13 600 ha respectively. Weather stations located in the province are used. The maximum capacity of the cassava processing plant in each period (bi-week) is assumed to be 28 000 Mg of fresh root of cassava ($2000 \text{ Mg day}^{-1} \times 14 \text{ days}$).

The decision-makers are assumed to choose from three planting dates; early rainy season (March), middle of the rainy season (May) and late rainy season (November); and the four most commonly grown cultivars (RY01, RY72, RY90, and KU50). The parameters for crop management such as fertilizer, herbicide applications, land preparation and tillage are added to reflect common practices in these studied areas. In total, there are 48 different yield trends (4 regions \times 3 planting dates \times 4 cultivars) to be simulated. A physiological cane growth model, GUMCAS, which is embedded in DSSAT 4.0.2, was used to simulate those cassava yields. The daily rainfall and maximum and minimum temperature were obtained from 5 years (2003-2007) of Thai Meteorological Department and it is as shown in Table 1. The historical daily data was found to be reliable with few missing records.

Table 1: Descriptive statistics of daily rainfall and maximum and minimum temperature data from 2003-2007

Month	Maximum temperature(°C)				Minimum temperature(°C)				Rainfall(mm)			
	Mean	Max	Min	Std	Mean	Max	Min	Std	Mean	Max	Min	Std
Jan	30.92	37.70	24.00	2.84	18.60	24.60	12.30	2.60	0.16	23.00	0.00	1.85
Feb	33.89	39.40	18.30	3.56	21.25	25.40	12.40	3.06	0.54	30.50	0.00	3.35
Mar	35.63	40.80	24.60	3.21	23.58	27.40	14.80	2.14	1.56	30.70	0.00	5.27
Apr	36.62	41.30	27.30	2.57	25.04	28.10	21.40	1.20	2.44	62.90	0.00	7.64
May	35.12	41.00	26.60	2.38	25.27	27.50	22.80	0.92	5.26	78.00	0.00	12.24
Jun	34.81	39.20	28.10	1.90	25.33	27.30	22.00	0.91	3.98	68.70	0.00	11.36
Jul	33.98	36.50	29.40	1.54	24.96	27.00	22.70	0.84	4.29	55.30	0.00	8.95
Aug	33.71	37.20	25.60	1.84	24.99	26.80	22.60	0.79	3.71	83.60	0.00	11.28
Sep	32.27	35.90	26.60	1.58	24.30	25.90	22.30	0.77	8.53	129.70	0.00	18.47

Oct	31.31	35.10	24.20	1.55	23.48	25.80	20.00	1.12	4.51	75.00	0.00	13.57
Nov	31.37	35.80	25.70	2.38	21.56	25.90	14.40	2.22	0.80	61.30	0.00	5.54
Dec	29.83	34.90	21.30	2.40	18.86	24.80	13.10	2.77	0.01	1.40	0.00	0.12

Source: Thai Meteorological Department

In solving this numerical case, the parameters and index used in the mathematical model could be set as follows: 1) $i = 1, 2, 3$ represent the planting dates in the month of November, March and May, respectively, 2) $j = 1, 2, 3, 4$ represent growing regions which are Si Kheu, Chum Phuang, Kula Ronghai, and Khon Buri, respectively, 3) $k = 1, 2, 3, 4$ represent the cane cultivars which are RY01, RY72, RY90, and KU50, respectively, 4) $t = 1, 2, 3, \dots, 24$ represent the harvesting periods, respectively, where $t=1$ is the first (bi-week) harvesting period (e.g., 1-14 July). The price of cassava root is assumed to be 2.03 THB kg^{-1} . And the production cost is assumed to be variable cost and varied depending on cultivar selection. The production cost of RY01, RY72, RY90, and KU50 are 13,000, 10,000, 9,800, and 12,000 THB ha^{-1} , respectively. Note that, THB is the unit of Thai currency which is approximately 0.03 USD THB^{-1} .

RESULTS

The simulated cassava yields from DSSAT with different cultivars, regions, and planting dates are shown in Figure 2 – 4. RY01 seems to outperform other cultivars when planted in November on Kula Ronghai. From Figure 2, a planner is able to disguise the cultivar for early and late harvest. For example, this yield simulation suggests that KU50 is a good candidate for early harvest while RY90 suit for late harvest. Figure 3 and 4 show that planting dates and grow regions affect cassava yields and therefore, the overall harvesting plan.

Figure 2. Simulated cassava growth of different cultivar planted in November on Kula Ronghai

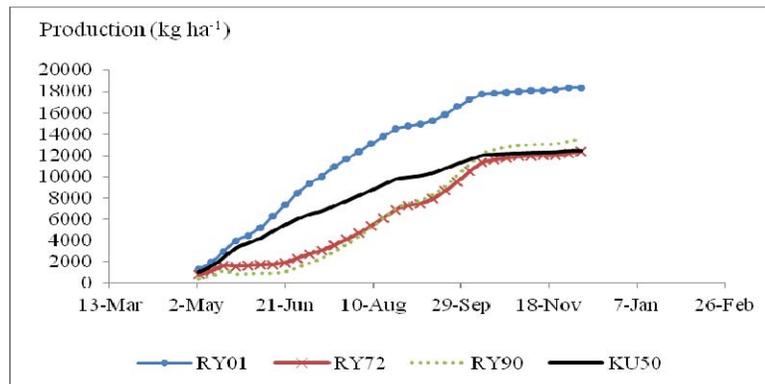


Figure 3. Simulated cassava growth of KU 50 planted in different region on November

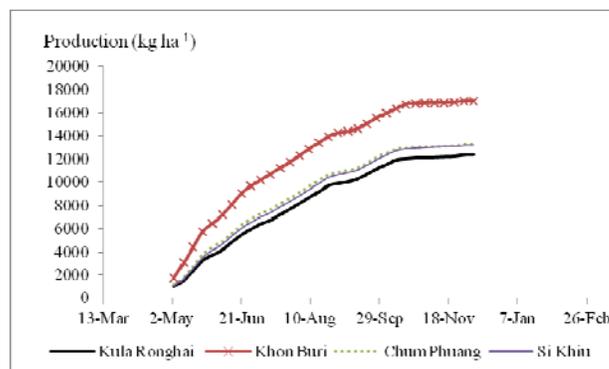
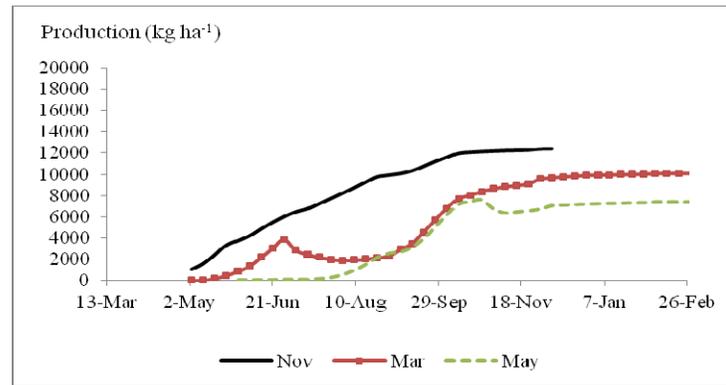


Figure 4. Simulated cassava growth of KU 50 planted in Kula Ronghai on different planting dates



The cultivation plan resulting from applying this mathematical model is shown in Table 2. This plan results in an optimal solution of 672 000 Mg of fresh root of cassava for all 24 harvesting period.

Table 2 : Cultivation plan results from the proposed mathematical model

Harvesting period	Region	Planting date	Cultivar	Land area (ha)
1-6	Chum Phuang	November	RY01	11,624
7-11	Kula Ronghai	March	RY90	9,118
12	Kula Ronghai	March	RY90	605
	Si Khiu	March	RY90	1,106
13-19	Si Khiu	March	RY90	11,694
20	Kula Ronghai	May	RY72	479
	Khon Buri	May	KU50	2,450
21-22	Khon Buri	May	RY01	5,121
23-24	Khon Buri	May	RY72	6,030

Factors affecting the plan

In this present simulation, all cultivars are selected by the mathematical model with different planting dates. The mainly selected cultivars are RY01 and RY90. Their selection is based on the profit of each harvesting period. However, the crop growth model does not account for unforeseen events such as disease or insect outbreak and severe weather conditions (e.g., draught, flooding, etc.). If these unexpected but almost inevitable events occur, the plan will be affected. Contingency depends on the time information is perceived. If the effects of environmental change are realized prior to planning, one could consider the vulnerable or infected or drought tendency regions separated from other regions. For example, from the above numerical example, there are four regions which are distinguished by the soil series. Assume that 40% of Chum Phuang was a drought tendency area and other cultivars were assumed to be drought tolerant except for RY01. The simulated yield for RY01 in this drought tendency area is assumed to be 60% of its original simulation as shown in Figure 5. To take this information into account, Chum Phuang is divided into two areas, drought tendency and normal area of 4649.6 ha and 6974.4 ha (11 624 ha in total), respectively. The number of regions (J) should be 5 instead of 4 and one more yield trend should be added to reflect RY01 affected by drought. The other parts of cultivation planning should remain the same. If, on the other hand, the yield change was perceived after growers planted their crops, then the harvest schedule is subject to revision such that the harvest schedule takes the planted area into account. The above growth scenarios will be reduced from 48 different yield trends (4 regions \times 3 planting dates \times 4 cultivars) to the combination of planting dates, cultivar, and region of planted area (as suggested in Table 2) plus affected region that was separately treated and the yield trends of upcoming planting dates. If 40 % of the cassava was planted on November in Chum Phuang and affected by drought, then one more yield trend should be added. The concept of the proposed mathematical program is still valid for harvest scheduling. After yield trends are revised, the mathematical model can be reapplied to retrieve the harvest period (t) of the planted regions by applying the planting date (i), growing area (j) and cultivar (k) of the original plan while for the

remaining land area the cultivation plan can be reset. To be more thorough, the numerical example is explained. Firstly, the index represents the drought area is added to the model (e.g., $j = 5$). Then, the total number of areas to be planned is 5 (e.g., $J = 5$). Assume that the yield change was perceived at the end of December (i.e., before harvesting period 1). The cultivation plans after discovering the drought is subject to revision. The mathematical model should be modified to incorporate the drought problem. Since some areas had been planted, there exists the possibility that the cassava supply might not be adequate for some periods. If this is the case, the starch factory should plan to procure the remaining cassava supply somewhere else—an effort that will likely prove costly for the factory. The mathematical model should be modified accordingly. And the modified version of the mathematical model of the numerical example incorporating drought situation is written as follows:

Additional parameters:

Y_t Estimated deficit cassava supply of period t (kg).

R Unit cost of obtaining deficit supply of cassava from other area (THB kg^{-1})

Objective function

$$\text{Maximizing } \sum_{i=1}^3 \sum_{j=1}^5 \sum_{k=1}^4 \sum_{t=1}^{24} (P\tilde{Q}_{ijkt} - C_k L_{ijkt}) - R \sum_{t=1}^{24} Y_t \quad (6)$$

Subject to

$$\sum_{t=1}^{24} L_{121t} = 11,624 \times 0.6 \quad (7)$$

$$\sum_{t=1}^{24} L_{151t} = 11,624 \times 0.4 \quad (8)$$

$$Land_2 = (13,600 - 11,624) \quad (9)$$

$$\sum_{i=2}^3 \sum_{k=1}^4 \sum_{t=1}^{24} L_{ijkt} \leq Land_j \quad \text{for } j = 1, 2, 3, 4 \quad (10)$$

$$\sum_{i=1}^3 \sum_{j=1}^5 \sum_{k=1}^4 \sum_{t=1}^{24} (\tilde{Q}_{ijkt} L_{ijkt} + Y_t) \geq 0.8 \times CAP \quad \text{for } \forall t \quad (11)$$

$$\sum_{i=1}^3 \sum_{j=1}^5 \sum_{k=1}^4 \sum_{t=1}^{24} (\tilde{Q}_{ijkt} L_{ijkt} + Y_t) \leq CAP \quad \text{for } \forall t \quad (12)$$

$$L_{ijkt} \geq 0 \quad \text{for } \forall i, j, k, t \quad (13)$$

$$Y_t \geq 0 \quad \text{for } \forall t \quad (14)$$

The objective function, expressed in (6), is modified by subtracting total cost of obtaining deficit cassava supply RY_t from Eq. (1). Constraints (7-8) represent land areas that planted cassava in November according to the original cultivation plan (Table 2). Constraint (7) represents the normal area and Constraint (8) represents the drought area of Chum Phuang, respectively. Constraint (9) indicates remaining land area for Chum Phuang after November planted. Constraint (10) ensures that the land area available to be planted in March and May will not exceed the available area for each region. Constraint (11) guarantees that, in each harvesting period, at least 80% of the maximum capacity of the mill should be satisfied by both cassava supply from the contracted area and cassava supply from somewhere else. Constraint (12) ensures that all the overall cassava supply will not exceed the maximum capacity of the mill. Constraints (13-14) guarantee nonnegative value of Y_t and L_{ijkt} , respectively.

Figure 5. Simulated RY01 yield that planted on November in Chum Phuang affected by draught

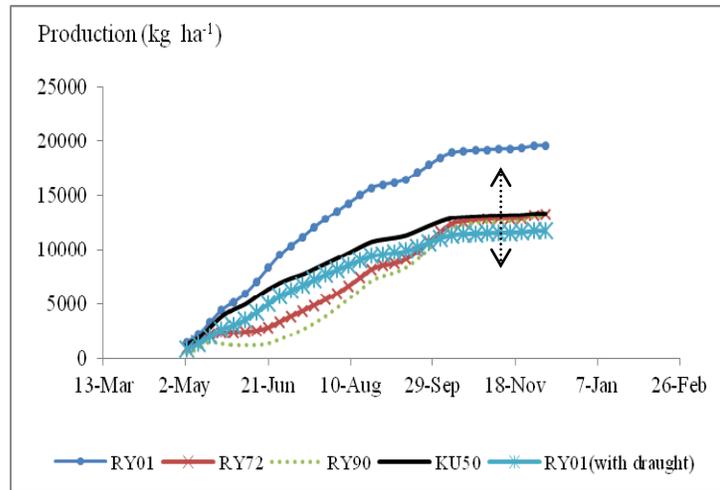
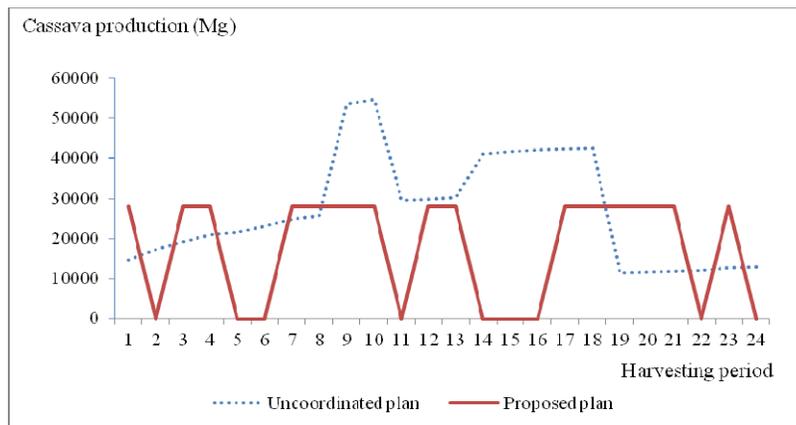


Figure 6. Simulated cassava supply overage and shortage of uncoordinated plan



The new cultivation plan obtained from the modified mathematical model is as presented in Table 3. Notice that the harvesting plan of period 4 and period 6 differ from the original plan (Table 2). However, from period 7 onward the two plans are alike. The revised plan suggests harvesting the drought affected areas in period 1 and 2 and the normal area in period 1, 3, 4 and 5. The total production as well as the revenue of the two plans is identical, while more land area is needed to fill up capacity if the drought occurs. Hence, the production cost is higher and the profit is lower in the drought case. In this numerical case, there is no deficit cassava supply to be procured from some other area. That is because there are some land areas still available in the constraints.

Table 3: New cultivation plan results after drought perceived

Harvesting period	Region	Planting date	Cultivar	Land area (ha)
1	Chum Phuang	November	RY01	1,834
	Draughted Chum Phuang	November	RY01	1,111
2	Draughted Chum Phuang	November	RY01	3,538
3	Chum Phuang	November	RY01	1,911
4	Chum Phuang	November	RY01	1,514
5	Khon Buri	March	RY01	280
6-11	Chum Phuang	November	RY01	1,715
12	Kula Ronghai	March	RY90	11,424
	Si Khiu	March	RY90	605
		March	RY90	1,106

13-19	Si Khiu	March	RY90	11,694
20	Kula Ronghai	May	RY72	771
	Khon Buri	May	RY01	605
	Khon Buri	May	KU50	1,565
21-22	Khon Buri	May	RY01	5,121
23-24	Khon Buri	May	RY72	6,030

Table 4 : Comparison of objective function between original and revised plan

Component of objective function	Original plan	Revised plan
Total cassava production (kg)	672,000,000	672,000,000
Land area (ha)	48,226	50,824
Revenue for contracted area (THB)	1,364,160,000	1,364,160,000
Production cost of contracted area (THB)	532,887,570	559,294,282
Cost of procuring deficit supply(THB)	-	-
Objective function (THB)	831,272,430	804,865,718

Simulated benefit from being coordinated

To illustrate the benefit of the proposed cultivation, we simulate another scenario when cassava growers are free to set their own cultivation. We assume that 30% of the growers plant the crop in May, followed by 40 % in March and 30% in November, respectively. And growers are assumed to choose cultivar that gives the highest 12-month yield and to harvest their crop randomly from 8-12 months after planting. Most of the assumed growers are small-scale growers who dedicate 0.8-2.5 ha to produce cassava. The simulation was conducted for 10 iterations. The cassava supply overages and shortages are shown in Figure 6. The average total cassava production when cultivation plan is uncoordinated is 647 578.8 Mg. It is 24 421.2 Mg lower than the former without any drought effects. Moreover, the supply of cassava that exceeds the processing capacity is subject to rapid deterioration. Hence, the lack of a coordinated plan suppresses the cassava supply even further.

DISCUSSION

To implement this concept to the Thai cassava industry, efforts from each party are needed. From the processor side, Ugwu and Okereke (1985) suggest that the processor work on supplier development programs, which provide technical advice and supply production (e.g., fertilizers) to the growers. The authors also suggest that the processors should facilitate harvest operations and deploy a cultivation plan on a yearly basis. In order to strengthen the partnership among parties, price transmission should be transparent and fairly stated. From the grower's side, once committed to be business partner, agreement or contracts and guidelines of producing cassava should be honored. Both parties should lay out any difficulties or constraints during implementation. Next, the industry also needs information technology to coordinate the plan. An agronomy team needs to collate field data such as field location and size, and soil type. Auxiliary but not nonessential factors that will make cassava yield estimation more accurate include farming skills and the production of organic substances. The use of Geographic information System (GIS) and database management will facilitate such coordination and other field management as well as other customer rising trends (e.g., traceability, carbon footprint). Furthermore, the accuracy of the crop growth model also depends upon the quality of climate data (Lawless and Semenov 2005). Although, we used randomly drawn of the five-year data, which may introduce bias into the simulation (Hansen and Jones 2000), it is utilized here to demonstrate the concept of a cultivation plan. For more details of the practical applications of the crop growth model to forecast crop yield at the large area and bias correction, see Besuidenhout and Singels (2007); Everingham *et al.* (2002); Everingham *et al.* (2005); Hansen and Jones (2000); Hansen *et al.* (2004); Hansen and Ines (2005); Ines and Hansen (2006); Lawless and Semenov (2005); Mavromatis and Hansen (2001). Lastly, although the objective of this study is to maximize cassava production, maximization of starch can be and, in fact, should be used if starch production is affected by the harvest time of the year. In this light, either crop growth modeler might additionally include starch production into the output of the crop growth estimation software or the planner might start collecting data and convert the cassava production into starch production.

CONCLUSION

In this study, a combination of a crop growth model and a mathematical programming is used to solve the problem of inadequate cassava supply to the cassava starch factory. The cultivation plan results from the model and states planting times and the corresponding harvesting window as well as select cultivars that might profit the farmer so that the capacity of the starch factory is optimized. The concept of the proposed cultivation possesses high potential to solve similar problems in the other industry as well. However, to implement the plan, involvements among parties are needed. For the research community, through the crop growth model is developed mainly for field management and estimation of crop production, it is highly applicable to supply chain management problems. In order for the agricultural chain to be well managed, it is necessary for a planner to understand how the crop and its environment interacts with each other so as to manage the chain intimately related to the nature of the crop. If one incorporates and plans according to those foreseen constraints, the number of manageable uncertainties and fluctuations in the chain will be tremendously reduced. In this light, the research community should explore more of the application of crop growth model on supply chain management. Although the concept of supply chain management has been widely used in other industries for a while, agri-food chain seems to be far left behind in apply its concept to the industrial practice. On the path to develop the knowledge on agri-food supply chain management, interdisciplinary collaboration is needed. Contributions from experts in different fields such as engineering, management, and information technology are crucial because this interdisciplinary knowledge must be taken into consideration in order for the agri-food supply chain management to be successfully developed.

REFERENCES

- Ahumada, O. and Villalobos, J. R. (2009). Application of planning models in the agri-food supply chain: A review, *European Journal of Operational Research* 196, 1-20.
- Bezuidenhout, C. N. and Singels, A. (2007). Operational forecasting of South African sugarcane productions: Part 1 – System description, *Agricultural Systems* 92, 23-38.
- Connor, D. J., Cock, J. H. and Parra, G. E. (1981). Response of cassava to water shortage I: growth and yield, *Field Crops Research* 4, 181-200.
- Evangelio, F. A. *Cassava agronomy research and adoption of improved practices in the Philippines-Major achievements during the past 20 years*. Proceedings of The 6th Asian Cassava Workshop, 21-25 February 2000, Ho Chi Minh City, Vietnam. Available from URL: http://webapp.ciat.cgiar.org/asia_cassava/pdf/proceedings_workshop_00/314.pdf [Accessed: 4 April 2010].
- Everingham, Y. L., Muchow, R. C., Stone, R. C., Inman-Bamer, N. G., Singels, A. and Besuidenhout, C.N. (2002). Enhanced risk management and decision-making capability across the sugarcane industry value chain based on seasonal climate forecasts, *Agricultural Systems* 74, 459-477.
- Grunow, M., Günther, H.-O. and Westinner, R. (2007). Supply optimization for production of raw sugar, *International Journal of Production Economics* 110, 224-239.
- Hansen, J. W. and Ines, A. V. M. (2005). Stochastic disaggregation of monthly rainfall for crop simulation studies, *Agricultural and Forest Meteorology* 131, 233-246.
- Hansen, J. W. and Jones, J. W. (2000). Scaling-up Crop Models for Climate Variability Applications, *Agricultural Systems* 65, 43-72.
- Hansen, J.W., Potgeiter, A. and Tippett, M. K. (2004) Using a general circulation model to forecast regional wheat yields in northeast Australia, *Agricultural and Forest Meteorology* 127, 77-92.
- Ines, A. V. M. and Hansen, J. W. (2006). Bias correction of daily GCM rainfall for crop simulation studies, *Agricultural and Forest Meteorology* 138, 44-53.

- Isamah, G. K. (2004) ATPase, peroxidase and lipoxygenase activity during post-harvest deterioration of cassava (*Manihot esculenta* Crantz) root tubers, *International Biodeterioration & Biodegradation* 54, 319-323.
- Jekayinfa, S. O. and Olajide, J. O. (2007). Analysis of energy usage in the production of three selected cassava-based foods in Nigeria, *Journal of Food Engineering* 82, (2007) pp. 217-226.
- Keating, B. A., Evenson, J. P. and Fukai, S. (1982). Environmental Effects on growth and development of cassava (*Manihot Esculenta* Crantz.) II. Crop growth rate and biomass yield, *Field Crops Research* 5, 283-292.
- Lawless, C., and Semenov, M. (2005). Assessing lead-time for predicting wheat growth using a crop simulation model, *Agricultural and Forest Meteorology*, 135, 302-313.
- Matthew, R. B. and Hunt, L. A. (1994). GUMCAS: a model describing the growth of cassava (*Manihot esculenta* L. Crantz), *Field Crops Research* 36, 69-84.
- Mavromoatis, T. and Hansen, J. (2001). Interannual variability characteristics and simulated crop response of four stochastic weather generators, *Agricultural and Forest Meteorology* 109, 283-296.
- Piewthongngam, K., Pathumnakul, S. and Setthanan, K. (2009). Application of crop growth simulation and mathematical modeling to supply chain management in the Thai sugar industry, *Agricultural Systems* 102, 58-66.
- Ratanawaraha, C., Senanarong, N. and Suriyapan, P. (2000). *Status of cassava in Thailand: implications for future research and development* The validation forum on the global cassava development strategy, 26-28 April 2000, Rome, Italy. Available from URL: <http://www.fao.org/docrep/009/y1177e/Y1177E04.htm#ch3> [Accessed: 30 January 2010].
- Richard, J. E. (1985). Physiological deterioration in cassava roots, *Journal of the Science of Food and Agriculture* 36, 167-176.
- Ugwu, B. O. and Okereke, O. (1985). The problem of inadequate supply of raw cassava for industrial cassava processing: A case study of the Nigerian root crops production company, Enugu, Nigeria, *Agricultural Systems* 18, 155-170.
- Wenham J. E. *Post-harvest deterioration of cassava: A biotechnology perspective* (Rome: Food and Agriculture Organization of the United Nations, 1995). Available from URL: <http://www.fao.org/docrep/v4510e/v4510e00.htm> [Accessed: 4 April 2010].

SCENARIO MODELING: MANAGEMENT TECHNOLOGY TO HARNESS FUTURE OPPORTUNITIES OF MULTILEVEL ORGANIZATION SYSTEMS

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ABSTRACT

The article presents some questions of changes in the construction forms and activity conditions of a modern business-company. The premises of scenario modeling in process-oriented methodology for predicting the formation of the future technology design for a multilevel organizational system are proposed. The basic problem set of forward-looking management for multilevel organizational systems and an approach to a formalization of their descriptions in regular management procedures are denoted. The example of practical implementation the proposed concept for the Russian Federation (RF) largest confectionery corporation is represented.

INTRODUCTION

In the post-crisis period of socio-economic development active transition processes in the economy and society as a whole, traditionally causing in the expert and scientific community the aggravation of discussions about the problem of predictive power of economic theory. On the background of changes of structural and behavioral characteristics of the economic objects of various types there is an increasing need of improvement of methodology and methods of analytical research in the area of socio-economic foresight at both the state and corporate levels of management. Along with the improvement of the institutional arrangements for sustainable development of the economy of particular importance is the study and improvement of adaptation properties of the modern economic systems. It is connected with the formation and implementation in practice of regular management technologies for the design of the company's future. The development of predictive capacity of economics comes in two interrelated areas: improving the methodology of future research and development the technologies and tools for analytical and predictive activity (APA) in the systems of organizational control.

RESEARCH METHODOLOGY

The issue of modeling and forecasting of the business organizations are well represented in many works in the modern sections of classical, institutional and evolutionary economic theory. The economic realities of theoretical and practically justify a structured review of economic objects as multi-level organizational systems (MLOS). The increasing organization of the activities related economic agents in the context of coordinated implementation their plans, suggests a natural weakening in theoretical studies of the hypothesis of weak influences. Should consider the potential and direction of self-organization of economic space and test the hypothesis about the active influence of the single economic entity in the formation of market trends. The most productive from the point of view of the author, can be integrated description of the current economic organization in the framework of the system concept of the enterprise based on integration of the rationalist and procedural paradigms of forecast research in interpretation of the uncertainty factor in developing economic

systems. The present study is based on the most pragmatic of the existing theoretical assumptions. It may be noted earlier results: the neoclassical theory in terms of determining and forecasting the impact of external market conditions to assess the effectiveness of management decisions in the activity of the company; neo-institutional theory in terms of determining and predicting changes in the formation of the efficient frontier (and preservation) the objectives of the enterprise and control the operation of a business organization; neo-evolutionary theory in the simulation of the mechanism of inter-farm interactions of economic agents and the formation of a focused economic development organization in a dynamic and volatile economic environment. The basis of tools of research is made by methods of the system analysis and mathematical modeling, probability theory and fuzzy computing.

Determining the composition of the basic predicative tasks within an integrated concept forecasting and analytical support to management in MLOS made in accordance with the methodology of the process-oriented forecasting (Pisareva, 2013). Study the evolution of objectives and content for the prediction function in economic management and business systems, as well as analysis of the composition, characteristics and practice of forecasting techniques allowed choosing one of the possible directions of theoretical apparatus forecasting research - scenario modeling (Pisareva, 2004, 2007, 2011; Popper, 2008; Porter, 2004; Van der Heijden, 1996). Expanding opportunities purely descriptive scenario approach by formalizing a scenario's method significantly increases the validity of the results in the formation of forward-looking options for the development of research and technology in the design of the future of the company. Applied aspects of research are connected with peculiarities of the development Russian's economy.

General global trends: globalization, information and innovations, unfolding in the Russian economy in low structuring of the economic environment with the excessive and hypertrophied role of national state-owned corporations. Today is characterized by the following features of the Russian economy: the heterogeneity of the development of industries and regions; the stratification of production technology platforms; the differentiation of the conditions for activity commercial and noncompetitive sectors of the economy; methodological gap in development of the national school of forecasting and planning upon transition from centralized administrative to the decentralized market mechanisms for regulation of activity of enterprises and organizations. In the RF the historical experience of mobilization of national resources to accelerate the development and qualitative transformation of the economic system of a society determines the unique and exceptional role of large strategic companies in the successful implementation of the national programme to modernize and re-industrialization of the Russian economy. The next example of the application of the proposed conceptual approach and developed theoretical device predictive modeling in MLOS shows estimate reserves for the growth efficiency of a major Russian integrated industrial company. It gives an evident illustration of special value, which purchases development of the methodology and design technology of the future in dealing with the challenges of economic growth. Source of information were the various scientific publications and open the analytical reviews in RF and world press, the official statistical data of the Federal Agency for Statistics of the RF (<http://www.gks.ru>), The Ministry of economic development of the RF (<http://www.economy.gov.>), the Central Bank of the RF (<http://www.cbr.ru>), the Federal Taxes Service of the RF (<http://www.taxes.ru>), the Federal Customs Service of the RF (<http://www.customs.ru>), The Russian Association of enterprises of confectionary industry (ASCOND) (<http://www.ascond.ru>), the Holding «United Confectioners» (<http://www.uniconf.ru>).

THE STRUCTURE OF THE ECONOMIC SPACE AND FORECASTING TECHNOLOGIES

Continuous transformation of the economy and strengthening of the influence on its development factors of instability and uncertainty requires improvement of methods and models of economic forecasting. The most important factor for a change in the role of prediction in management is to transform the general economic space and local economic environment, due to the evolution of the nature and structure of business organizations. This is manifested in the formation of the network structure of the economy and distributed control mechanism, characteristic for MLOS of economic type (Miles, Snow, 1986; Pisareva, 2013).

The global economic area is characterized by a qualitative change in the technological, functional and teleological structure. The layered construction of economic objects is typical and natural for the organization's form of economic activity and management in the society. During the consolidation of business organizations is

a clear relationship of universalization and specialization processes. This causes the strengthening of the role of inter-organizational interactions at various levels of the Russian economy. There is a process of active formation of flexible economic structures (not necessarily administratively subordinate) of the technological and functional cooperation. MLOS is intended to integrate the various institutions and economic activities through the development of related business processes and build the object, spatially and temporally approved control mechanism. Synergy potential growth of economic efficiency increases, including through the use of the generated depth business information. Building effective value chains provides the participants of the economic integration additional competitive advantages in predicting and satisfaction consumer demand for goods produced/services provided.

Following the conclusions of the fundamental works of Miles and Snow (1986), can refer to the main attribute symptoms of the network model of the economy the most important, in the opinion of the author, to determine the characteristics of analytical support forecasting in the management for MLOS: distribution, shared among several firms dispersed assets and competencies needed for the creation and development of a competitive product / service (integrated structure of business processes); combinable, i.e. use depending on the values, interests, goals and conditions of cooperation activities of the various types of building of networking business organizations (stable, internal, dynamic model of economic networks); modifiability, i.e. building is not a replication, and the evolutionary mechanism of reproduction of effective and rational elements and relationships in corporate structure (maintaining capacity development and the goals of economic activity); independence, i.e. forming approved decisions that take into account diverse predictive assessment control elements of the network structure of the results and consequences of the interactions in the corporate structure of the various economic interests (the activity of associated economic agents). *In conceptual terms* the formation and the dominance MLOS in the structure of the network economy can be considered as institutional condition of gradual transition from a forecasting system to the system of designing of the future. *In terms of information* forming MLOS associated with decrease in the entropy of the economic space. *In formal terms* the building MLOS described in terms of graph theory is different from the structure of the hierarchy to remove restrictions on the number of upstream organizational relationships (in the hierarchy - one) and cycles (in the hierarchy are not available) in the construction of a topological model of the system. *In economic terms*, the complexity of the system of management for the activities in the integrated economic organization leads to higher administrative and transaction costs, including the appreciation of the reproduction cycle of the predicative information. *In organizational terms* this means a shift from the periodic implementation of function prediction to build forecasting process in management system (stable set of related and standardized predictive tasks).

KEY PRINCIPLES OF BUILDING THE APA-SYSTEMS BASED SCENARIO MODELING FOR MULTI-LEVEL ORGANIZATIONAL SYSTEMS

To effectively solving problems and tasks of justification and approval forecasts for the formation of managerial decisions in the MLOS proposed to use the three basic principles of building the AFA-system based scenario modeling: the variability of the future, reverse causality and enhanced compensation (Pisareva, 2013).

The variability in the future due to the influence of a combination of many different factors, including the capabilities and vectors of development for interacting agents of economic evolution at all economy's levels. Solution of control multi-organizational system with the prognostic assessment with the prognostic assessment of possible qualitatively different images of desired future for different control centers greatly increases the feasibility of developed plans, the validity of implemented activities and the adaptability of chosen strategies. This improves the overall stability of the economic system by preparing for a possible transition to a new version of the trajectory of the development if an existing changes internal and external conditions of functioning within the range of scenario opportunities. *The reverse causality* is that, the future (as path and state satisfactory to the formulated goals of development) is the cause of action in the present. It combines the cumulative capacity of the system and generated opportunities. Thus, the future of design technology radically changes the nature inform management decisions and the formation of strategic and current plans of the business activity. Here there is a complex task for a formalized description of the generation or identification the goals in the MLOS. *The extended compensation* is linked to the implementation of the multiplicity of interest's related subjects in the

MLOS. This presupposes a mismatch of expectations, intentions and images of the advisable or acceptable future and leads to an uneven distribution of the expected results on the elements of the network structure of inter-economic cooperation. Consequently, it is impossible to follow a single optimality criterion when making decisions on the assessment of possible options for the development of the complex economic object. That is, the inclusion of an integrated value chain in the network structure involves the comparison of diverse advantages (benefits, effects), which are outside of the common metric.

The basis of a scenario-oriented technology forecasting is an approach to formalization of scenarios (Pisareva, 2011). Scenario model has a rather complex structure, which includes models of: the system under study; the system environment; the external background; the goal-setting; the system management; the system behavior; the state measurement system; the state measurement environment; the state measurement of the external background; the measurement of quality control; the system time and , in fact, the model scenario. Indicators to assess the characteristics of the simulated elements of the MLOS $p(x, y, u)$ represented composition exogenous x , endogenous y и control u , variables can be defined in a deterministic $\{D_\rho\}$, probabilistic $\{P_\rho\}$ or fuzzy $\{F_\rho\}$ state space. The key points of formalizing models of construction and operation of the MLOS and subsequent computer experiments is to determine the structure of a set of scenario parameters S^θ . This set contains the elements (\aleph^θ) and characteristics ($h(t)$) accounted unknown factors (interval, stochastic or uncertain), as well as the elements (\aleph^θ) and specifications ($\xi(t)$) accounted events in the period under development, which are considered the subject of management in the MLOS. In general, to describe the logical and chronological sequence of events can be given a graph of connected events $G_{\aleph}(t)$, defined exogenously or identified on the basis of the rules for evaluation the situation $R_p(t)$ in a clear or fuzzy formulation. . As such, it is event-graph defines the logic of interaction of actors and factors of influence on the formation and transformation of the trends of the simulated trajectories of the economic system. Thus, the variability of the scenario described by a set of tuples with a pair of complex structure $S^\theta = \langle h, \xi \rangle$. The specifics of the description and construction of the scenario model to determine a wide range of possible directions for its use for analytical support in the management of forecasting in the MLOS.

KEY TASKS OF PREDICATIVE MODELING IN MANAGEMENT MULTI-LEVEL ORGANIZATIONAL SYSTEMS

In the framework of the concept of scenario modeling as part of the AFA» in the MLOS can implement the following main types of predictive tasks (Pisareva 2013, 2012, 2011).

The predictive control task (its modifications under additional assumptions are stated as the normative, descriptive, cooperative and situational predictive modeling): $\Pi^\Sigma : (I_D, G_{\Sigma EF}, \Theta_\pi, S^\theta) \rightarrow I_\Pi$. Here we use the notation: I_D, I_Π - sets the initial and forecast information; $G_{\Sigma EF}$ - graph of construction and interactions of elements of the system, the environment, and the background; Θ_π - set goals future studies. The predictive control task focused on proactive assessment of the conditions of the company's development and Prediction of the action plan refers to the class of the traditional problems of predicative analytics.

The next group of predictive tasks can be associated with the analysis of the dynamics of the implementation of planned solutions for the development strategy of the MLOS. Often in the publications and information materials devoted to future studies of socio-economic systems, the concept of “controlling”, “monitoring” and “scanning” are mixed and used as synonyms. Entered in a formalized set-theoretic description of scenarios separation of elements of the environment under study MLOS on the system environment and the system background allows a clearer distinction in the use of these terms in economic forecasting. Based on the objectives and content problems predictive modeling and semantic differences in the design technology of the future can be formulated as a number of excellent performances productions predictive tasks: predictive controlling, which centers on the problem of forecasting the dynamics parameters of system elements (often

managed and controlled by the control parameter of the system), that is estimated the changes of current conditions and values of the implementation plan; predictive monitoring, focusing on the study of the relationship of parameters for the system elements and system environment (controlled and regulated in the institutional field parameters of the system) to assess the occurrence of critical conditions and the values of the indicators of the implementation of the plan; predictive scan-looking, focused on the prediction of the set of parameters for the system elements, the elements of the system environment and the elements of the system background (causing uncontrollable factors influence the functioning of the MLOS) with the purpose to estimate the change in the composition and role of the elements and the identification of new conditions of economic activities.

In this statement of the projected tasks should provide some key models of general scenario models: the behavior of the system - in the predictive control task, the state measurement system - in the predictive controlling task; the state measurement system and system environment - in the predictive monitoring task; the state measurement system, system environment and external background - in the predictive scan-looking task. Next, we give a description of the fragment of scenario modeling procedures for tactical production planning for the current activity industrial holding company.

APPLICATION OF SCENARIO MODELING CONCEPT IN MANAGEMENT TO HARNESS FUTURE OPPORTUNITIES OF MULTIPRODUCT COMPANY

As an example of a complex economic entity with multi-level organizational structure for the network type was considered an integrated business system located in different sectors of industrial, transport, commercial and other assets, which are involved in the formation process of value chains of various orientation. In this case, the model of the system, for example, for tactical planning in the MLOS will have the following content levels of formalization: 1) the evaluation of the economic potential, which determines the amount and structure of financing (depending on the forecast yield on the capital markets); 2) the evaluation of productive capacity, which determines volume and structure of product offer (depending on the forecast profitability of resources and products in the goods markets); 3) the evaluation of technological capacity, which determines the intensity and structure of production modes (depending on the prediction of productivity and efficiency technologies and the forecast profitability equipment and technologies markets). Basic integrated model coordinated tactical planning to forecast evaluation planning decisions in a multi-organizational system is described by the author (Pisareva, 2012). It is important to note that the proposed base model does not impose specific requirements on the structure of the original and derivative mathematical task (block-diagonal matrix of the system of linear constraints, the additivity of the global objective function, etc.). For its formalization in the static and dynamic performances adopted classic way of describing the production technology as multi-resource and multiproduct. This allows us to study the device in the input-output matrices, convenient, including, for the description of a multi-stage production, jobs typology of resources and products in the process, use post optimize analysis for prediction of changes in the parameters of the solution.

Computer experiment the forecasts agreed planning solutions in the current production planning was carried out on the example of industrial holding “United Confectioners” (<http://www.uniconf.ru>). “United Confectioners” is one of the largest confectionery holding companies (HC) in Europe includes 19 manufacturing facilities (production companies, PC), including branches, different legal form located throughout Russia, and specializing in the production of confectionery products. In economic network also includes more than 20 supporting organizations (service companies, SC), including distribution centers, chain stores, transport companies, investment and financial companies, repair and construction companies, logistics companies, etc.). Number of employees is more than 22 000 people. Control of the current operations provides management company (MC). Sales volumes holding in Russia can control according to various estimates by research companies from 15 to 20% of the market for confectionery products, confident in the lead on the priority product categories. In turn “United Confectioners” part of the financial-industrial group “Group Guta” (<http://www.gutagroup.ru>), having access to the resources and infrastructure of banking, investment, insurance, real estate development and social activities.

The product range is divided into local (original brand produced by a separate company and submitted to the local market) and global (universal brands produced by different companies of the holding by a single formula and presented at local, regional, domestic and international markets). A characteristic feature of the holding "United Confectioners" is output, covering a full assortment of confectionery market, classified into five categories: chocolate, chocolate candy (by weight and in boxes), candy, flour (waffles, cakes and gingerbread, biscuits, breakfast cereals, cakes and wafers etc.) and other sweeteners (marshmallows, candy, halva, toffee, nougat, etc.). Technical equipment of OC allows 196 technology of production for different products with varying degrees of interoperability equipment. The set of technologies for each company is different. The main subjects of the formation and adoption of the planning decisions were determined by the Board of Directors (HC), the General Directorate (MC), the Executive Directorate (OC), members of the Board of Directors (PC and SC) from outside the owners companies (OC) differentiated representing minority shareholders on various levels of holding.

Test measurements were performed in 2012, modeling the process of planning for 2009 based on historical baseline (at the time in the holding was 15 confectionery factories) for the period 2004-2008 using the proposed concept of scenario modeling to forecast evaluation planning decisions. It is possible to compare these results with those of traditional technology of formation of the current plan and the actual results of the holding in 2009, indirectly evaluating the adequacy and effectiveness of the applied method in the implementation of the AFA». Pre-processing and consolidation of project information during the formation of the overall structure of the system model has been issued for the one-step version of the problem of predictive assessment planning decisions (for annual planning). For a fixed set of values of the parameters and the fixed list of events the problem dimension to the models of integration of the activities of the components of the HC-MC-OC amounted 2125 equations (not including internal and external assessment criteria for elements of the MLOS from HC and OC) and 29,085 variables. For the specified a group of five parameters и three quality events for each of them the total number of alternative scenarios to be $5^3 = 225$ options, each of which may be a series of calculations using the Monte Carlo method for the integrated assessment of the influence of random factors. Statistical calculations were performed using the application of the E-Miner (company SAS Institute Inc.), the optimization calculations were performed in the original environment optimization Linear Program Solver (LiPS), developed at the chair of mathematical methods in the management (the State University of Management, Moscow). Simulation results for the base case scenario are illustrated in Table 1.

Table 1: Characteristics of the results of the holding in the products space (thousand tons)

Design status	Categories of products				
	Chocolate	Chocolate candy	Candy	Flour	Other sweeteners
The current calculation scheme	54,15	145,15	53,95	44,25	26,35
The model's calculation scheme	56,69	147,44	51,13	43,06	27,35
Observed values	55,89	147,18	52,17	42,85	27,01

The comparison of the predictive assessment of the planned solutions obtained on the basis of the proposed approach with the adopted variant of the plan developed by the scheme operated tactical planning and the actual results of the holding is shown in Table 2.

Table 2: Comparison of the summary measures of the holding company

Design status	Sales, mln.rbl.	Operating income (EBIT), mln.rbl.	Output					
			Total		Global range		Local range	
			thousand tons	average capacity utilization, %	thousand tons	average capacity utilization, %	thousand tons	average capacity utilization, %
The current calculation scheme	47676,21	3694,91	323,85	64,00	275,27	54,40	48,58	9,60

The model's calculation scheme	48398,61	3932,39	325,67	64,36	277,30	54,80	48,38	9,56
Observed values	49435,00	4058,61	325,11	64,25	271,47	53,33	53,64	10,92

The results of predicative estimation for consensual planning decisions are shown in Table 3.

Table 3: The relative effects of the scenario modeling application in management

Indicators \ Decision status	The model calculation scheme	The current calculation scheme		Observation	
	Value	Value	Deviation, %	Value	Deviation, %
Output, thousand tons	325,67	323,85	0,56%	325,11	0,17%
Sales, mln.rbl.	48398,61	47676,21	1,52%	49435,00	-2,10%
Costs, mln.rbl., including:	44466,22	43981,30	1,10%	45376,39	-2,01%
raw, materials	32777,02	33653,04	-2,60%	33934,84	-3,41%
fuel, energy	1328,88	1425,22	-6,76%	1243,53	6,86%
personnel	4056,91	3377,51	20,12%	3917,50	3,56%
transportation	4013,65	2641,35	51,95%	3835,78	4,64%
other	2289,77	2884,18	-20,61%	2444,73	-6,34%
Operating income (EBIT), mln.rbl.	3932,39	3694,91	6,43%	4058,61	-3,11%
ROS ratio	0,081	0,078	4,84%	0,082	-1,04%
P/S ratio	0,299	0,282	6,43%	0,314	-5,05%
P/E ratio	0,271	0,275	-1,49%	0,260	4,23%
ROE ratio	0,136	0,133	2,56%	0,138	-1,54%
Average capacity utilization rates	64,36	64,00	0,56%	64,25	0,17%

SUMMARY AND CONCLUSIONS

Proposed version of the formalization of scenario modeling can be the basis for developing of a model complex. Its application for realization tasks of coordinating and harmonization of predictive estimates and options business plans for a wide range of multi-level organizational systems real sectors of the economy. It can be horizontally or vertically integrated holdings, territorial-industrial complexes, integrated technology clusters, network of industrial and commercial companies, complex target program (intersectoral and interregional), large-scale investment projects (corporate and government), objects of public-private partnership, international economic associations, etc.

The volume and complexity of computational procedures requires rational restrictions scenario options to build the generation settlement alternative chains and determining how to combine key scenario parameters. The need to develop a theoretical apparatus of calculation scenarios (a set of rules and operations for static and dynamic predictive tasks) and the construction of useable and functional analytical system were identified for modeling and predictive assessment of the planned solutions to the most common conditions and problems of the future design in integrated business systems. Of key importance in the formation of relevant and complete array of data needed to create a panoramic picture of the future, including the tasks consistent tactical planning, is an effective organization of reproduction quality predicative information for all levels, shapes and control channels in the MLOS.

REFERENCES

Miles, R., Snow, C. (1986) Organizations: New Concepts for New Forms, *California Management Review*, XXVIII (3), USA, SF.

Pisareva, O. (2013). The creation of analytical predication concept in multilevel organization system management, *MID (Modernization, Innovation, Development)*, №3, 34-41.

Pisareva, O. (2012) General integration model of current planning in management of multilevel organization system, *Bulletin of the University (Russia, Moscow, State University of Management)*, 12, 142-149.

Pisareva, O. (2011). Scenarios Modeling in Management: the Development Analytical and Forecasting Methodology in Researches of Large-scale Systems, *Journal of Economic Integration*, 7, 19-26.

Pisareva, O. (2004). The Creation of Effective Forecasting System for Business Management: from Methods to the Process. *Reading book of the Global Business and Technology Conference*, 630-637.

Pisareva, O. (2007). Evolution of the forecasting function in the context of Russian management practice. *Reading book of the Global Business and Technology Conference*, 590-597.

Popper, R. (2008). How are foresight methods selected? *Foresight*, Vol. 10 (6), 62-89.

Porter, A., and el. (2004). Technology futures analysis: Toward integration of the field and new methods, *Technological Forecasting & Social Change*, 71, 287-303.

Van der Heijden, K. (1996). *Scenarios: the art of Strategic Conversation*. NY: John Wiley&Sons.

THE INFLUENCES OF PRODUCT INVOLVEMENT AND FEAR OF SELLER OPPORTUNISM ON PERCEIVED USEFULNESS OF MEAT TRACEABILITY SYSTEM: THE MEDIATING ROLE OF PERCEIVED INFORMATIVENESS

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ABSTRACT

Due to the outbreak of mad cow disease and bird flu, there is more concern regarding meat product safety. Meat traceability, therefore, become more widely implemented in order to handle the food safety concern. Although traceability is more common among manufacturer-wholesaler-retailers cycle, it is rarely used as a marketing tool to persuade consumers who are meat endusers. Therefore, the present study attempts to understand consumer behaviors in the context of meat product with traceability system by conducting a study in Thailand where research in this area is scant. The study results reveal that fear of seller opportunism positively influences perceived informativeness and perceived usefulness of meat traceability system while involvement with meat product does not. Finally, perceived informativeness appears to mediate this impact of fear of seller opportunism on perceived usefulness.

INTRODUCTION

Food safety is an important issue in consumer's decision to buy food product (Gruner, 2005). The concern for food safety has been particularly pronounced for meat products after the emergence of mad cow disease in Europe (Sans, de Fontguyon, & Giraud, 2008) and H5N1 bird flu in poultry in Asia (Burgos & Burgos, 2007).

In Thailand, bird flu situations that have occurred since 2004 seriously stir consumer concern in food safety and resulted in the decrease in chicken and poultry consumption at that time (Burgos & Burgos, 2007). In response, the Thai government had attempted to initiate safety and standard measures in meat production. For example, the Department of Livestock Development launched campaigns under the safe meat program to promote consumers to buy meat and meat-processed products with a "Q" mark which denoted a quality assurance starting from meat production process at cattle farms through the consumers (Piemkhoontham & Ruenrom, 2010). In a private section, leading Thai companies which operate a comprehensive meat business have developed traceability systems to standardize quality and safety of their meat production.

Traceability system is an information technology that records and displays information for each particular piece of product in every step of manufacturing process (Hobbs, 2004). Therefore, information including source-of-origin, production method, ingredient, manufacturer, warehouse, distributor, selling place, and product movement from the beginning up to the point where that particular product reaches enduser can be retrieved with this technology. Traceability system, therefore, are tremendously useful for product tracking and checking (Hobbs et al., 2005).

In Thailand, although traceability has been used within manufacturer-wholesaler-retailers cycle, its role as a marketing tool intended for consumers who are endusers of meat products is relatively scant. One reason could be attributed to the lack of profound understanding of consumer behaviors in the meat traceability context.

As a consequence, the present study attempts to fill these gaps by conducting a study with consumers in Thailand to examine four constructs related to the consumption of meat product with traceability system: (1) product involvement, (2) fear of seller opportunism, (3) perceived informativeness of traceability system, and (4) perceived usefulness of traceability system. It is expected that what uncovered in the present study will contribute to marketing literature by empirically documenting how these four variables may be relevant for marketers and academics interested in using traceability as a marketing tool. Moreover, due to the scarcity of meat traceability marketing research in Thailand, the results from this study would also provide managerial implications for Thai meat producers. In this regard, the use of Thailand as a country in focus would respond to the need for more empirical evidence from other underrepresented countries (Sophonsiri & Polyorat, 2009).

CONCEPTUAL FRAMEWORK AND HYPOTHESES

Product Involvement

Product involvement refers to the level of consumer's general interest in or attention to a product or a product class (Hupfer & Gardner, 1997 as cited in Shu & Yi, 2006). Product involvement is different from product evaluation in that the latter is a process in which consumers respond positively or negatively to a particular product. Product involvement, on the other hand, influencing consumers to search for product information and spend more time selecting the right product before making purchase decision (Celsi & Olson, 1988 as cited in Shu & Yi, 2006).

Careful product information search usually occurs with high-involvement product as it is a riskier purchase decision because this kind of product is often high-value or more expensive than general products. Besides, the product may involve emotion, feeling, and values of consumers as in the case where consumers are intrinsically interested in that product. Product information gained through the extensive search may lead to consumer's higher level of product knowledge, and eventually purchase decision (Cho, 2010)

In contrast, low-involvement product is relatively unimportant, inexpensive, or lack of emotional attachment. Quite often, the purchase occurs on a regular basis. As a result, consumers tend to do relatively less product information search and spend less time making purchase decision (Rahtz & Moore, 1989)

Fears of Seller Opportunism

Fears of seller opportunism (Pavlou, Liang, & Xue, 2007) can easily occur when consumers do not have much ability or opportunity to completely check seller's behaviors. Therefore, consumers may worry that sellers may become opportunistic because there could be hidden information available for sellers but not for consumers. In addition, there could be some actions from the seller side that consumers are not aware of. Deception in product quality or product guarantee not delivered as promised (Mishra et al., 1998) are some examples of this fear.

When consumers are not certain about the outcome of a purchase decision, they are likely to conduct information search before buying in order to have more knowledge and understanding of the actual product attributes (Fazio & Zanna, 1987 as cited in Xingyuan, Li & Wei, 2010).

During the information search process, consumers are likely to have confidence in sellers who can sufficiently provide detailed product information. The confidence in seller will be even higher if the provided information can be used to trace back the product if problem occurs after the purchase. In this sense, this useful information will lessen consumer's fear for seller opportunism (Choe et al., 2009).

Perceived Informativeness

The informativeness of the traceability system is a perceptual construct (cf., Chakraborty et al., 2002) which can be different from the actual or objective number of type of informational cues provided by the sellers' effort. In the buying process, consumers may fear that sellers may deceive about product quality. As a consequence, consumers usually search for product information to help their decision making. Consumers may use information

from websites, labels, or any signs on product in order to evaluate the trustworthiness of the seller and the product. When sellers can provide and reveal complete product information in a straightforward manner, consumers may get information relevant for their purchase decision. This perceived informativeness from the seller's action, therefore, could signal the seller's professionalism coupled with high level of trustworthiness. Consumers, therefore, become relieved that sellers will not take advantage from consumers through deception in product quality or selling product with quality lower than that advertised (Pavlou, Liang & Xue, 2007).

This perceived informativeness is particularly critical for food product where consumers often cannot accurately evaluate the product safety with their eyes. As a result, the provision of detailed product information in various aspects, as well as the information regarding the manufacturer or seller, will ascertain consumers that they received information sufficient for each purchase decision making (Aboulnasr, 2006)

Perceived usefulness

Perceived usefulness reflects the extent to which consumers believe how useful a certain thing, in the context of the present study, the meat traceability system or the use of technology to receive product information, is. In other words, this construct deals with a consumer's belief that traceability will augment their decision performance in buying meat product (cf., Pavlou, Liang & Xue, 2007). Whether consumers will accept or reject the use of this technology depends on how much consumers believe that this technology will increase the effectiveness and efficiency of purchase decision in comparison with the status quo. In general, the higher level of perceived usefulness of such product or technology will encourage its acceptance.

In general, consumers are encouraged to perceive the usefulness of the technology that provides information on food product. Manufacturers and sellers of meat food product, for example, implement traceability system and thus demonstrate the transparency of manufacturing process in every step of the supply chain network (Choe, et al., 2009). Information provided from traceability system is regarded as valuable and useful for consumer's better decision making for the food purchase (Golan, Krissoff, & Kuchler, 2004).

Based on the discussions thus far, the current study proposes a set of hypothesized relationships among these four variables. First, consumers with higher level of involvement with meat product are expected, to search for more information about meat product. As the meat traceability system enables consumers to acquire more product information, it is expected that, consumers with higher level of meat product involvement will find the meat traceability system more informative and more usefulness. That is, the present study hypothesizes that meat product involvement will positively influence the perceived informativeness and perceived usefulness of meat traceability system.

H1: Meat product involvement positively influences perceived informativeness of meat traceability system.

H2: Meat product involvement positively influences perceived usefulness of meat traceability system.

Next, based on a similar line of reasoning, because fear for seller opportunism may encourage higher level of information search and meat product traceability can provide consumers with more information, it is expected that, consumers with higher level of fear for seller opportunism will find the meat traceability system more informative and more usefulness. That is, the present study hypothesizes that fear for seller opportunism will positively influence the perceived informativeness and perceived usefulness of meat traceability system.

H3: Fear of seller opportunism positively influences perceived informativeness of meat traceability system.

H4: Fear of seller opportunism positively influences perceived usefulness of meat traceability system.

Furthermore, perceived product informativeness which reflects the extent to which meat traceability offer information buyers perceived as relevant for their decision making is expected to positively influence perceived usefulness of meat traceability system. In addition, it is also expected that the perceived informativeness will mediate the influence of meat product involvement and fear for seller opportunism on

perceived usefulness of meat traceability system, reflecting the mechanism underlying consumers' decision in the context of meat traceability.

H5: Perceived informativeness of meat traceability system positively influences perceived usefulness of meat traceability system.

H6: Perceived informativeness of meat traceability system mediates the influence of meat product involvement and fear for seller opportunism on perceived usefulness of meat traceability system.

METHOD

Samples and Procedure

The survey was distributed to 121 consumers in the Northeastern region of Thailand via judgmental sampling. The profile of the research participants is: female (64%), between 21 to 30 years old (54%), bachelor's degree holders (55%), public sector workers (58%), and with an income of 10,001-20,000 baht/month (60%).

The research participants were first informed of the study description. Next, they were requested to complete the measures of meat product involvement, fear for seller opportunism, perceived informativeness of traceability system, and perceived usefulness of meat traceability system. Finally, the participants provided their personal data at the end.

Measures

The research participants were instructed to indicate the degree to which they agreed or disagreed with each of the scale items in the Likert type (1 = strongly disagree, 5 = strongly agree). Product involvement was measured with five items (e.g., "In general I have a strong interest in meat product") adapted from Beatty and Talpade (1994) and Kopalle and Lehmann (2001). Fear of seller opportunism was measured with three items (e.g., "The producers of meat product who sell through the traceability system will not cheat on consumers.") adapted from Pavlou, Liang and Xue (2007). Perceived informativeness of traceability system was measured with three items (e.g., "I would learn a lot from using a traceability system.") adapted from Luo (2002). Perceived usefulness of meat traceability system was measured with four items (e.g., "Traceability system would be useful in purchasing meat products.") adapted from Pavlou and Fygenson (2006).

RESULTS

Means, standard deviations, and reliabilities of the variables are displayed in Table 1. All scales exhibited Cronbach's alphas higher than .70, thus suggesting the adequate scale reliabilities (Nunnally 1970).

Table 1: Descriptive Statistics and Reliabilities

	Mean	SD	Cronbach's α
Product involvement	3.34	.85	.90
Fear of seller opportunism	3.48	.76	.86
Perceived informativeness	3.69	.63	.83
Perceived usefulness	3.87	.68	.89

Impact of product involvement on perceived informativeness (H1). To test this hypothesis, perceived informativeness was regressed on involvement. The regression results are shown in Table 2. The results reveal that involvement did not significantly influence perceived informativeness ($\beta = .10, t = 1.08, p > .1$). Therefore, H1 is not supported.

Impact of product involvement on perceived usefulness (H2). To test this hypothesis, perceived usefulness was regressed on involvement. The results reveal that involvement did not significantly influence perceived usefulness ($\beta = .13, t = 1.39, p > .1$). Therefore, H2 is not supported.

Impact of fear of seller opportunism on perceived informativeness (H3). To test this hypothesis, perceived informativeness was regressed on fear. The results reveal that fear of seller opportunism significantly influence perceived informativeness ($\beta = .43, t = 5.17, p > .001$). Therefore, H3 is supported.

Impact of fear of seller opportunism on perceived usefulness (H4). To test this hypothesis, perceived usefulness was regressed on fear. The results reveal that fear of seller opportunism significantly influence perceived usefulness ($\beta = .47, t = 5.79, p > .001$). Therefore, H4 is supported.

Impact perceived informativeness on perceived usefulness (H5). To test this hypothesis, perceived usefulness was regressed on perceived informativeness. The results reveal that perceived informativeness significantly influence perceived usefulness ($\beta = .70, t = 10.55, p > .001$). Therefore, H5 is supported.

The mediating role of perceived informativeness in the impact of product involvement and fear of seller opportunism on perceived usefulness (H6). Because product involvement was not found to significantly influence either perceived informativeness or perceived usefulness (H1 and H2), this predictor was not further included in the meditational analysis. Therefore, perceived usefulness was regressed only on fear for seller opportunism and perceived informativeness. To test the mediating role of perceived informativeness, a series of regression analyses were run according to Baron and Kenny (1986). First, H3 indicates that fear for seller opportunism had a significant impact on perceived informativeness: FEAR \rightarrow INFORM. Second, H4 indicates that fear for seller opportunism had a significant impact on perceived usefulness: FEAR \rightarrow USEFUL. Third, H5 indicates that perceived informativeness significantly influence perceived usefulness: INFORM \rightarrow USEFUL. Fourth, to test a mediating role of INFORM on FEAR - USEFUL relationship (H6), perceived usefulness was regressed on both fear for seller opportunism and perceived informativeness. The results indicate that beta coefficients of fear for seller opportunism decreases more than half, though still significant. The beta coefficient of perceived informativeness, however, remained quite the same and strongly significant, thus suggesting the partial mediating role of perceived informativeness ($\beta_{\text{FEAR}} = .21, t = 2.97, p < .01$; $\beta_{\text{INFORM}} = .61, t = 8.57, p < .001$). Therefore, H6 is supported.

Table 2: Regression Results

Hypothesis	Independent variable	Dependent variable	F, P, R ²	IV's β coefficient, T, P
H1	product involvement	perceived informativeness	F = 1.16; $p > .1$; R ² = .01	$\beta = .10, t = 1.08, p > .1$
H2	product involvement	perceived usefulness	F = 1.93; $p > .1$; R ² = .02	$\beta = .13, t = 1.39, p > .1$
H3	fear of seller opportunism	perceived informativeness	F = 26.68; $p < .001$; R ² = .18	$\beta = .43, t = 5.17, p < .001$
H4	fear of seller opportunism	perceived usefulness	F = 33.47; $p < .001$; R ² = .22	$\beta = .47, t = 5.79, p < .001$
H5	perceived informativeness	perceived usefulness	F = 111.31; $p < .001$; R ² = .48	$\beta = .70, t = 10.55, p < .001$
H6	(1) fear of seller opportunism (2) perceived	perceived usefulness	F = 63.69; $p < .001$; R ² = .52	($\beta_{\text{FEAR}} = .21, t = 2.97, p < .01$; $\beta_{\text{INFORM}} = .61, t =$

DISCUSSIONS

The results of our study which was conducted in Thailand reveal that, for Thai consumers, fear for seller opportunism positively influences perceived informativeness of meat traceability system which, in turns, positively influences perceived usefulness of meat traceability system. That is, perceived informativeness acts as a mediator in this set of relationship. Contrary to expectation, however, product involvement, does not significantly influences either perceived informativeness or perceived usefulness of meat traceability system.

A number of research implications can be drawn from this study. First, for marketers of meat product in Thailand, the main target for meat product with traceability is more likely to be consumers who have fear of seller opportunism, rather than those who are highly involved with meat product. In this light, marketers may consider using fear appeals (e.g., Hastings, Stead, & Webb, 2004) to persuade consumers to buy meat product with traceability system. Furthermore, as perceived informativeness of meat traceability system is found to be a significant mediator, marketers may need to make detailed information available for consumer so that their product with traceability system will be viewed more favorably. For policy makers, governments may consider encouraging the disclosure of meat product information through traceability to alleviate consumers' fear of seller opportunism as perceived informativeness is found to be critical.

In terms of study limitations and directions for future research, it is perplexing, however, to find that involvement with meat product is not a significant predictor in this set of relationships. It is possible that, in Thailand where the use of traceability in consumer marketing is still scant, consumers are not familiar with traceability. Therefore, traceability system may not develop the desired impact as what could be predicted based on the literature. In this regard, future studies may attempt to revalidate our results with consumers from other countries where traceability is more widely used. One limitation of the present study is the use of judgmental sampling. Future research, therefore, may seek to replicate our study with the use of random sampling. Furthermore, in addition to a survey method, other research methods including depth interview, experiment, and content analysis (cf., Polyorat, 2011) may shed further light on the use of meat traceability system as a strategic marketing tool.

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REFERENCES

- Aboulnasr, K. (2006). Country of Origin Effects: The Role of Information Diagnosticity, Information Typicality and Involvement. *Marketing Management Journal*, 16(1), 1–18.
- Baron, R. & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.
- Beatty, Sharon E. & Talpade, S. (1994). Adolescent Influence in Family Decision Making: A Replication with Extension. *Journal of Consumer Research*, 21 (September), 332-341.
- Burgos, S. & Burgos, S. A. (2007). Avian Influenza Outbreaks in Southeast Asia Affects Prices, Markets and Trade: A Short Case Study. *International Journal of Poultry Science*, 6 (12), 1006-1009.

- Cho, V. (2010). The Endorser's Persuasiveness on the Purchase Intention of High Involvement Products: A Comparison between a Newly Launched Product and a Mature One. *Journal of Global Marketing*, 23 (3), 226-242.
- Choe, Y.C., Park, J., Chung, M., & Moon, J. (2009). Effect of the Food Traceability System for Building Trust: Price Premium and Buying Behavior. *Information Systems Frontiers*, 11(2), 167-179.
- Chakraborty, G., Lala, V., & Warren, D., (2002). An Empirical Investigation of Antecedents of B2B Websites' Effectiveness. *Journal of Interactive Marketing*, 16(4) 51-72.
- Golan, E., Krissoff, B., & Kuchler, F. (2004). Food Traceability—One Ingredient in a Safe and Efficient Food Supply. *Amber Waves*, 2(2), 14–21.
- Grunert, K.G. (2005). Food Quality and Safety: Consumer Perception and Demand. European. *Review of Agricultural Economics*, 32 (3), 369-391.
- Hastings, G., Stead, M., & Webb, J. (2004). Fear Appeals in Social Marketing: Strategic and Ethical Reasons for Concern. *Psychology & Marketing*, 21 (11), 961–986.
- Hobbs, J. E. (2004). Information Asymmetry and the Role of Traceability Systems. *Agribusiness*, 20 (4), 397–415.
- Hobbs, J.E., Bailey, D.V., Dickinson, D.L., & Haghiri, M. (2005). Traceability in the Canadian Red Meat Sector: Do Consumers Care?. *Canadian Journal of Agricultural Economics*, 53(1), 47-65.
- Kopalle, Praveen K. & Lehmann, D.R. (2001). Strategic Management of Expectations: The Role of Disconfirmation Sensitivity and Perfectionism. *Journal of Marketing Research*, 38 (August), 386-394.
- Luo, X. (2002). Trust Production and Privacy Concerns on the Internet: A Framework based on relationship marketing and social exchange theory. *Industrial Marketing Management*, 31(2), 111-118.
- Mishra, K.E., Spreitzer, G.M., & Mishra, A.K. (1998). Preserving Employee Morale during Downsizing. *Sloan Management Review*, 39 (2), 83-95.
- Nunnally, J.C. (1970). *Introduction to Psychological Measurement*. New York: McGraw-Hill.
- Pavlou, P.A. & Fygenson, M. (2006). Understanding and Predicting Electronic Commerce Adoption: An Extension of the Theory of Planned Behavior. *MIS Quarterly*, 30 (1), 115-143.
- Pavlou, P. A., Liang, H., & Xue, Y. (2007). Understanding and Mitigating Uncertainty in Online Environments: a Principal-Agent Perspective. *MIS Quarterly*, 31(1), 105– 136.
- Piemkhontham, T. & Ruenrom, K. (2010). Consumer Perception and Acceptance of the Traceability System for Meat Products. *Chulalongkorn Business Review*, 32 (123), 73-107.
- Polyorat, K. (2011). The Influence of Brand Personality Dimensions on Brand Identification and Word-of-Mouth in Asia: The Case Study of a University Brand in Thailand. *Asian Journal of Business Research*, 1 (1), 46-61.
- Rahtz, D.R. & Moore, D.L. (1989). Product Class Involvement and Purchase Intent. *Psychology & Marketing*, 6(2),

113-127.

Sans, P., de Fontguyon, G., & Giraud, G. (2008). Value-Based Labels for Fresh Beef: An Overview of French Consumer Behaviour in a BSE Crisis Context. *International Journal of Consumer Studies*, 32, 407-413.

Shu, J.C. & Yi, Y.J. (2006). When Brand Attitudes Affect the Customer Satisfaction-Loyalty Relation : The Moderating Role of Product Involvement. *Journal of Consumer Psychology*, 16(2), 145-155

Sophonsiri, S. & Polyorat, K (2009). The Impact of Brand Personality Dimensions on Brand Association and Brand Attractiveness: The Case Study of KFC in Thailand. *Journal of Global Business and Technology*, 5 (2), 51-62.

Xingyuan, W., Li, F., & Wei, Y. (2010). How Do They Really Help? An Empirical Study of the Role of Different Information Sources in Building Brand Trust. *Journal of Global Marketing*, 23(3), 243-252.

THE IMPACT OF THE SOUTH AFRICAN LABOUR REGULATORY REGIME ON LEADERSHIP AND COMMAND IN THE SOUTH AFRICAN NATIONAL DEFENSE FORCE. (SANDF)

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ABSTRACT

Organizational effectiveness is closely linked to the role of a leader, and the way in which such leadership impacts on the work engagement of the people in any organization. Leadership styles have evolved over time, with a prominent shift from the traditional autocratic and directive leadership of the past centuries to a more participative and democratic style of military leadership of the new age. The South African National Defense Force similarly has to contend with this reality. Strong and appropriate military leadership provides the decisive edge and is the most essential dynamic of operational effectiveness in the South African National Defense Force. As with any military organization, the choice of leaders and methods for educating, training and developing such leaders will have a major impact on the provision of a combat ready force for South Africa. The South African National Defense Force as a transforming entity should seek to explore appropriate leadership, command and manage practices that will satisfy the needs and requirements of South Africa's combat forces. There is however no simple formula for leadership development, especially in an African context. Leadership is about influence and action; to be truly comprehensive, African leadership theory must surpass the test of local applicability in diverse cultural, geographical, political, economic, and military settings. In view of the aforementioned, the labour-regulatory regime in South Africa may be seen as contributing to this problem. Since the new democratic Government came into power in 1994 a number of labour-related policy and legislation have been drafted. Examples include the Bill of Rights, the White Paper on Defense, the Labour Relations Act, and the Basic Conditions of Employment Act. Such documents pose significant implications for commanders and leaders in the South African National Defense Force as it may be seen to focus overwhelmingly on the rights of subordinates, and thus possibly rendering traditional leadership styles redundant. Concern exists that the status quo will have an impact on the leadership and command efficacy of commanders in the South African Defense Force. In this paper, different leadership models will be analyzed and the traits of a successful commander and leader will be identified. A further objective of this paper is to identify the most suitable leadership style for a commander to ensure that South Africa will have a combat-ready force when needed. A qualitative research methodology is applied to initiate the debate on this matter. In addition to a desktop study, empirical research is undertaken by means of interviews with selected military officers who have been strategically placed in key positions in the SANDF. It is envisaged that this paper should form the basis of further discourse on the matter.

INTRODUCTION

Organizational effectiveness is closely linked to the role of the leader and the way in which this leadership role impacts on the work engagement of the people in the organization. The levels of interaction and the relationship between employees and leaders can be linked to productivity, commitment and satisfaction in the work environment (Dibley 2009:1)

Leadership as a concept has been subjected to research and development for many years. The ultimate challenge for leadership is the ability to transform the behavior of leaders into organizational outputs of job satisfaction, commitment and collaboration. (Kouzes and Posner: 2007)

Leadership styles have evolved over time, with a prominent shift from the autocratic and directive leadership of the twentieth century to a more participative and democratic style of the new generation. There is no simple formula for leadership. Leadership is about influence and action, and in the military environment it can be argued that nations need leaders to be of admirable character. Leadership development should be an integral part of officer training and development.

Since the new democratic South African Government came into power in 1994 a number of legislation such as the Constitution of the RSA, 1996 , the Labour Relations Act 66 of 1995 , the Basic Conditions of Employment Act,1996,the Occupational Health and Safety Act,85 of 1993,the Employment Equity Act 55 of 1998 and the White Paper on Defence,1995 were passed in parliament. Each one of these Acts ensures the basic rights of employees. This empowerment of employees changed the role of the military leaders dramatically. Leadership is important for the South African National Defense Force and procedures are in place for leadership development, however a balance should be found between the type of leadership development and the rights and freedom of employees in the SANDF in terms of the new legislation.

CHANGES IN LABOUR LEGISLATION IN SOUTH AFRICA SINCE 1994

Since the first democratic government in South Africa, came into power in 1994, a number of legislation has changed and these changes has a significant impact on the leadership of commanders in the South African National Defense Force. Some of these changes include:

The Constitution of the Republic of South Africa, 1996

The basic human rights of South African citizens are found in the Bill of Rights detailed in Chapter 2 of the Constitution, and are based on the democratic tenants of human dignity, equality and freedom. According to Van Der Walt (1998:99) fundamental rights are the basic human rights of citizen's which are protected to ensure that they are not violated by Acts or omissions of any employee or representative of the state, or by actions of an organ of the state. Labour rights are articulated in Section 23 of the Constitution of the RSA,1996 and specific mention is made that everyone has the right to fair labour practices.

The White Paper on Defense, 1995

The acceptance of this White Paper in 1995 has resulted in dramatic changes in the SANDF. The SANDF was established through the integration of former statutory and non-statutory forces. The integration of these forces, many of which were once enemies – in – arms is part of South Africans commitment to national reconciliation and unity. The White Paper further alludes to the fact that external military aggression will be allowed as a last resort when political solutions have been exhausted. The SANDF will also commit to peace keeping operations in Africa. Before 1994 the South African Defense Force was deployed and was in full combat on the South African borders, the White Paper now clearly state that South Africa is no longer at war and because of the fact that South Africa is once again part of the International Community, Political means rather than force will be used to resolve possible threats and aggression from outside its borders. The SANDF therefore has change from an offensive force to a defensive force.

The Labour Relations Act,66 of 1995

The purpose of the Labour Relations Act is to enhance the economic development, social justice, labour peace and the democratisation of the work place. The Labour Relations Act,1996 seeks to strengthen workplace

democracy by promoting the rights of workers. The Act prohibits unfair discrimination and victimization of workers and favors conciliation and negotiation as a way of settling disputes.

Occupational Health and Safety Act 85 of 1993 (Supplemented by Government Notice R1179 of 1995)

The aim of the Occupational Health and Safety Act 85 of 1993 is to provide for the health and safety of persons at work, it also includes general duties of employers to employees (Section 5) , general duties of employees at work (Section 14) and the creation of Health and Safety Committees in the work environment (Section 19 and 20) .

The Employment Equity Act 55 of 1998

This Act seeks to eliminate unfair discrimination in employment and to provide for affirmative action to redress the imbalances of the past and to create equality in employment. The purpose of this Act is to promote equal opportunities and fair treatment in employment through the elimination of unfair discrimination and to ensure equitable representation in all occupational categories and levels in the work force.

LEADERSHIP

The first organized efforts by researchers to learn more about leadership involved the analysis and identification of personal qualities of leaders. The underlying idea was that strong leaders have certain basic traits that distinguish them from non-leaders and if these could be isolated and identified potential leaders could be recognized. (Smith and Cronje 1999:288). Jones identify these traits as, intelligence, knowledge and expertise, dominance, self-confidence, high energy, tolerance for stress, integrity and honesty and maturity.(Jones, George and Hill, 1998:408) A leadership style refers to a pattern of behavior and actions leaders use to achieve the desired out comes. It describes how they set up standards for the team, develop their teams short and long term goals, listen to employees and provide them with feedback, motivate them, reward them and punish them (<http://www.trubyachievements.com>). From a military perspective it can be argued that no nation would tolerate its military leaders to be dishonest cowards with no integrity and weak characters. It is rather a given that militaries, as representatives of their respective nations, desire their military leaders to be of admirable character. Leadership is important for the South African National Defense Force and the SANDF has procedure in place for leadership development (<http://scientiamilitaria.journals.ac.za>). It is however crucial that officers who has the potential to be a successful leader in the new role of the SANDF be identified to participate in leadership development programs. The South African Department of Defense however does not have an officially approved leadership philosophy or policy on which the SANDF can base their own leadership development policies and practices (<http://scientiamilitaria.journals.ca.za>) .

Defining leadership

Over time, the concept of leadership has been attributed with a variety of meanings. More than 50 years ago Hemphill and Coans (1957:7) described leadership as the behavior of an individual, directing the activities of a group towards a shared goal. Waddell, Devine, Jones and George (2007:193) define leadership as the process by which an individual exerts influence over other people and inspires, motivates and directs their activities to help achieve group or organizational goals. Leadership thus entails influencing the behavior of others in the direction of goal achievement (Swanepoel, Erasmus en Schenk 2012:339). Waters (1999:10) identify the following characteristics of leaders:

- Leaders have the ability to create a vision and excite people to achieve the impossible;
- Great leaders have an external energy and inner strength that see them through tough times;
- Leaders have a mental agility that enables them to make effective decisions much faster than other people;
- Leaders allow their team members to grow and carry out tasks without interruptions;
- Leaders have the ability to tap into peoples souls. They are emotionally intelligent and

enhance people's confidence by understanding and dealing appropriately with their emotions and concerns. This reflects to the ability to adapt one's style to the needs of the situation and people.

Smith (1999:11) argues that the primary function of a leader is to lead, and leading refers to directing the human resources of an organization and motivating them to achieve the goals of the organization. Leaders do not act in isolation and do not only give orders, they collaborate with their superiors equals and subordinates with individuals and groups to attain the goals of the organization. Leading also means making use of influence and power to motivate employees in achieving organizational goals.

Different leadership styles

Leadership styles are different. There are no good or bad, right or wrong, leadership styles. The most effective leaders know how to adjust their leadership styles, depending on the situation they are in. It can thus be argued that a military leader should be able to adopt his or her leadership style to the situation at hand. The following leadership styles have been identified, it should be noted however that any leader can use any style, and a good mix that is customized to the situation is generally the most effective approach. Successful leadership depends on the fit with regard to the leader, the subordinate and the situation. A leader's effectiveness is determined by how well his or her style fits the situation. (Smith and Cronje 1999:293)

The visionary leader

The visionary leader moves people towards a shared vision, telling them where to go but not how to get there, thus motivating them to struggle forwards. They openly share information hence giving power to others. They can fail when trying to motivate more experienced experts or peers. This style is best when a new direction is needed (<http://changingminds.org>) Visionary leaders can also be described as transformational leaders. Transformational leaders have the ability to make the necessary changes in the organization's mission and structure (Smith and Cronje 1999:296)

Coaching leader

This one-on-one style focuses on the development of individuals, showing them how to improve their performance and helping to connect their goals to the goals of the organization. They are good at delegating challenging assignments, demonstrating faith that demands justification and which, leads to high levels of loyalty. (<http://guides.wsj.com>)

The Affiliative leader

This style emphasizes the importance of team work, and create harmony in a group by connecting people to each other. It is a very collaborative style which focuses on emotional needs over work needs. This approach is particularly valuable when the leader tries to heighten team harmony increase morale, improve communication or repair broken trust in an organization (<http://guides.wsj.com>)

The Democratic leader

This style draws on people's knowledge and skills and creates a group commitment to the resulting goals. The democratic leader acts to value inputs and commitment by way of participation and listening to both the bad and the good news. It works best when the direction the organization should take is unclear, and the leader needs to tap into the collective wisdom of the group.

The Pace-setting leader

The pace-setting leader builds challenging and exciting goals for people, expecting excellence and often exemplifying it themselves. The leaders set extremely high standards for performance. They identify poor performers and demand more of them. They tend to be low on guidance, expecting people to know what to do. They get short term results but over the long term this style can lead to exhaustion and decline, because it can undercut morale and make people feel as if they are failing (<http://changingminds.org>).

The Commanding leader

The commanding leader soothes fears and gives clear directions by his powerful stance. This is a classic model of military style leadership. This leader need emotional self-control for success and can seem cold and distant. It rarely involves praise and frequently employs criticism, it undercuts morale and job satisfaction (<http://guides.wsj.com>)

Each one of these leadership styles has strengths and weaknesses. As leaders are working with people whose styles might differ from theirs. Each one of these different styles starts with a different vision and that vision determines how they response to specific circumstances, for example:

- Visionary and commanding leaders start with the vision of the future;
- Coaches starts with a vision of the individual;
- Affliative leaders starts with a vision of the team; and
- The pace setting leader starts with a vision of the system .

LEADERSHIP DEVELOPMENT IN THE SOUTH AFRICAN DEFENCE FORCE

From the information in the Acts mentioned above, it is clear that the role and functions of a commander in the SANDF should change dramatically. A commander should have the necessary skills to be able to motivate and inspire a homogeneous group of people who has joined the SANDF from different cultures, backgrounds and groupings in South Africa. Whereas in the past a commander was regarded as a strong autocratic leader who will direct the actions of his sub ordinates, it can now be argued that the commander will have to focus on personal skills, negotiation skills and motivational skills, to ensure that subordinates will follow his / her command and that the objectives will be achieved without infringing in the rights of the subordinates.

SOUTH AFRICAN LEADERSHIP

Charlton in Swanepoel (2012:351) points out that studies conducted in South Africa have shown that leader's ability to manage themselves is very important. Khoza (2007:24) argues however that South African leadership should be situated squarely in the Africa context. According to him leadership is dominated by values. It is about Africans anchoring themselves in their own continent; it's history, tradition, cultures, mythology, creative motive ethos and value systems. The South African leadership challenge is thus multidimensional and very complex (Swanepoel, 2012:354) Strangle (in Swanepoel:355) list eight leadership lessons from the former President of South Africa, Mr Nelson Mandela:

- Courage is not the absence of fear – it is inspiring others to move beyond it;
- Lead from the front – but don't leave your base behind;
- Lead from the back – and let others believe they are in front;
- Know your enemy – and learn about his favorite sport;
- Keep your friends close – and your rivals even closer;
- Appearance matter;
- Nothing is black or white; and
- Quitting is leading too.

CONCLUSION

The composition of the South African Defense Force has changed dramatically since 1994. This as well as the impact of the labour legislation in South Africa has serious challenges for future leaders in the South African

Defense0. Force. A combination of the leadership approaches should become part of the training of commanders in the SANDF. Commanders should be trained to be sensitive towards the needs and aspirations of subordinates, and at the same time successfully achieve the goals and objectives of the defense force. Although some of the acts clearly indicate that members of the SANDF are excluded from its provisions, the exclusions put even further pressure on the leadership as it creates an environment where workers(soldiers) who has a vital role to play in the protection of the people of South Africa gets frustrated. This frustration has recently led to classes between the South African Police Service and the South African National Defense Force.

REFERENCES

Books and Journals

Dibley, J.E. 2009. The relationship between the transformational leadership style of offices and the level of their followers work engagement in South African Army University of South Africa. Unpublished master dissertation.UNISA.

Jones,G.R .George, J.M. & Hill,C.W.L.1998. Contemporary Management. Irwan /McGraw-Hill, New York

Khoza, R. 2007 b. “ Sustainability: To make the world a better place” Management today 23(9)10.

Kouzes , J.M. & Posner B.Z. (2007) The leadership challenge (2nd ed.) San Francisco: Jossey – Bass

Kroon, J. 1995. General Management. Kagiso publishers, South Africa

Smith, P.J.& Cronje,G.J. 1999. Management Principles: A contemporary edition for South Africa. Juta and Co.

Swanepoel, J.M. Erasmus, B.J. & Schenk, H.W. 2012. South African Human Resource Management: Theory and practice 4th ed. Juta and Co Hd

Waddel, D. Devine, J. Jones, G.R. & George, J.M. (2007) Organisational development and change. Asia Pacific, 3rd edition. Melbourne.

Walters, H. 1999. Leadership and teamwork in a hostile environment: A true inspirational challenge. Management today, 15(7):10

Websites

<http://changingminds.org> , visited on 8 April 2013

<http://guides.wsj.com> , visited on 15 April 2013

<http://www.trubyachievements.com> ,visited on 30 January 2013

<http://scientiamilitaria.journals.ac.za> ,visited on 5 April 2013

Legislation

The Constitution of the Republic of South Africa,1996. Government Printer , Pretoria, South Africa.

The Employment Equity Act, Act 55 of 1998. Government Printer, Pretoria, South Africa.

The Labour Relations Act, Act 66 of 1995.Government Printer, Pretoria, South Africa.

The Occupational Health and Safety Act, Act 85 of 1993. Government Printer, Pretoria, South Africa.

The White Paper on Defence 199. Government Printer ,Pretoria South Africa.

CRISIS MANAGEMENT AND COMMUNICATION STRATEGY IN RESPONSE TO ETHICAL LAPSES AND CORPORATE SOCIAL RESPONSIBILITY FAILURES

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ABSTRACT

This paper critically reviews the specific approaches used by three “brand-name” entities (a global car company, a highly-ranked university, and a famed world champion cyclist) to defend their recently blemished record. The paper identifies a number of commonalities in their crisis management and communication efforts, which appear to have exacerbated the negative effects on their business reputation and brand. Based on the lessons drawn from these unsuccessful Public Relations campaigns, the authors make a number of recommendations on how to handle apparent discrepancies between desired and actual brand image in the areas of ethics and corporate social responsibility.

INTRODUCTION

In the past few years, a diverse group of organizations and individuals with high-profile brand names have committed public relations blunders in the course of dealing with the communications aspect of inappropriate actions and questionable conduct that they were accused of engaging in.

Corporate giants like Toyota, Carnival Cruises, News Corporation, Goldman Sacks, and British Petroleum—among many others—have all become embroiled in controversies involving allegations of wrongdoing; unfortunately, they seem to have worsened their position by using ineffectual public relations campaigns. The problem is not confined to the corporate world: not-for-profit organizations and recognized individuals with stellar reputations have also come under attack for failing to employ timely and effective communication strategies in the aftermath of operational and/or performance fiascos.

This paper first briefly reviews the specific approaches used by three “brand-name” entities (a global car company, a highly-ranked university, and a famed world champion cyclist) to defend their tarnished record. Next, the paper identifies elements of their crisis *communication* management, which appear to have exacerbated the negative effects of the crisis on their business reputation and brand. Finally, on the basis of this analysis, the authors make a number of recommendations on how “star” performers should handle apparent discrepancies between desired and actual brand image in the areas of ethics and corporate social responsibility.

THREE UNRELATED INCIDENTS OF WRONGDOING

In the period 2009-10, Toyota, a best selling automobile marque known worldwide for its reliable, durable, and well-engineered cars, had to initiate several vehicle recalls following well-publicized reports of sudden acceleration incidents, some of them fatal (Andrews et al., 2011).

At the beginning of 2011, Lance Armstrong, the celebrated professional road racing cyclist, cancer survivor, and founder of the Livestrong Foundation admitted during a TV interview to using performance-enhancing drugs for much of his career, including his record seven consecutive Tour de France wins (Salzman, 2013).

In 2012, Emory University, an elite institution of higher education based in Atlanta, Georgia, acknowledged purposefully misreporting admissions-related data to various reference sources and third parties ranking college/university services, like the US News and World Report, for over more than a decade (Pope, 2012).

In all three cases described above and many others involving similar misdeeds, the responsible parties had to defend themselves against accusations of violating principles that were central to their strong global brands and corporate identities; in most instances, their commitment to ethical values and corporate social responsibility was explicitly mentioned in their own mission statements. To that extent, many analysts and commentators have suggested that such improprieties would not only result in extensive monetary damages in the short-term but will likely linger in people's minds for much longer causing significant harm to brand reputation and equity.

WHAT WENT WRONG IN PR STRATEGY?

Although the nature of wrongdoing in each of the cases discussed in this paper varied, the communications strategies chosen to deal with the effects of the crises on public perception shared a number of common elements as described in various press reports: for instance, there were considerable delays by the accused parties in disclosing the facts of each case; when, belatedly, the latter—under pressure from the media and legal authorities—started revealing what transpired, reporting was fragmented and selective with an eye towards protecting those responsible from legal liability. Occasionally, the Public Relations (PR) methods devised included efforts to pin responsibility on individual employees, shift much of the blame to outside parties (e.g., subcontractors, suppliers, etc.) and/or attack supervisory agencies, the government, and the news media, for—allegedly—engaging in “witch-hunts” (www.thedailybeast.com).

Although a careful examination of the facts in each case may point to mistakes committed by specific staff members and/or third parties, wrongdoers appear to have worsened their problems by relying on belated and selective accounts of what transpired and—even worse—seeking to deflect their responsibility. In fact, such an approach by leading organizations and high-profile individual performers is likely to backfire—it makes them look arrogant, dishonest, and causes whatever “goodwill” they may have established over the years quickly dissipate.

SHORT-TERM DAMAGE CONTROL

Following a fiasco of the magnitude described in the three cases above and in light of the need for self-perpetuating negative publicity to be contained as a prerequisite for eventual reputation recovery, a carefully designed communications strategy should employ a balanced combination of the following elements:

- (a) Disclose fast and accurately all available evidence regarding issues pertinent to the mishap that can be of concern to the public. The advantages of such an approach should be obvious—it's certain that a vacuum of pertinent information about a problem will be promptly filled by rumors, leaks, and opinions outside the control of the accused party. By contrast, the timely dissemination of the facts, as part of a genuine conversation with one's stakeholders, offers the opportunity to tell one's own story and help—to a certain extent—restore the wrongdoer's credibility through what is known in the communication literature as “inoculation” (Jones et al., 2000).
- (b) Develop and publicize a short list of specific, doable, high-priority measures that the transgressor will swiftly enact to boost internal controls so that similar mistakes will not be easy to commit in the future. This step—if completed with a genuine concern towards righting what's wrong—could also help

improve one's credibility by reassuring the public, while at the same time addressing any existing "gaps" in operations.

- (c) Offer a sincere and humble apology to those, directly and indirectly, adversely affected by the misdeeds and—to the extent possible—provide material assistance and/or some form of compensation to victims in order to demonstrate empathy and understanding of their needs. These actions can help re-shape all-important public opinion by easing public anger and decreasing negative perceptions.

Clearly, one cannot overlook the fine line walked by those adopting the steps above; in particular, a public reckoning of error combined with some form of redress and atonement may be construed as admissions of guilt resulting in potentially expensive lawsuits and other legal implications. Therefore, all related communications by the accused parties and their representatives should be carefully crafted to protect their legitimate interests without though giving the impression that they represent marketing "spin."

The Role of Technology

In the past few years, technology has offered communication professionals new ways (e.g., digital and social media) to reach (and hear from) the public. However, the ensuing flood of real-time information is very difficult to attend to and digest—not to mention properly respond to. This manifests itself clearly in the aftermath of a crisis when, for instance, related facts as well as rumors and opinions spread worldwide fast-mutating along the way.

Thus, those accused of perpetrating a misdeed should have in place appropriate monitoring tools and processes to keep up with the volume and speed of relevant information; moreover, properly trained personnel should also be available to relay a response reflecting their own point of view.

LONG-TERM REPUTATION MANAGEMENT

A brand synthesizes the sum total of perceptions, images, and expectations a product or organization generates in people's minds to establish a desired, distinct position in the marketplace and ensure long-term, sustainable growth. Brands incite beliefs, evoke emotions, and prompt behaviors (Kotler & Gertner, 2002); moreover, they offer a reassurance of quality and "peace of mind" making purchasing decisions easier and less anxiety-ridden.

Therefore, virtually all studies of crisis communication management view the brand of the party at the center of a crisis as a potential casualty based on the—correct—assumption that a public relations catastrophe is bound to impact on the way the public perceives the organization or individual involved and their credibility.

However, a brand—one of the most valuable assets for organizations like Toyota or Emory University and even individual performers like Lance Armstrong—could also become a powerful tool in the long-term effort to restore the reputation of an embattled party.

For this to happen, those charged with managing the communications aspect of a blunder on behalf of the accused party need to focus their efforts on immediately isolating those—few and potentially remediable—elements of the transgressor's image affected by the crisis from the organization's or individual's "core" brand.

As discussed in the previous section of this paper, the former i.e., the wrongdoer's "reputational vulnerabilities" should be publicly identified and promptly acted upon. At the same time, implementing a public relations strategy that could be labeled "Back to Basics," the transgressor's essential *positive* brand qualities i.e., "reputational advantages" should be emphasized in a clear, consistent, and effective tone and manner through all appropriate communication platforms and activities. Successful application of this plan is likely to help bridge the distance between the accused party's desired and actual brand image created as a result of the crisis.

Such a methodology may be disputed as a high-risk approach to the extent that it could be considered hypocritical and/or ethically deficient by some members of the public. Furthermore, it is clearly a costly strategy requiring an extensive persuasion campaign to achieve its goals. Nevertheless, if executed properly, it may contribute to the successful evolution of the reputation of accused parties and eventual strengthening of their brand.

CONCLUSION

This paper, addressed the communications aspect of a crisis from the perspective of the transgressor. Based on the lessons drawn from the handling of three recent cases involving widely-publicized blunders committed by a global carmaker, an elite university, and a celebrity-athlete, the paper proposed both a short- and a longer-term public relations approach, which—if properly implemented—could help the accused party benefit from its past mistakes, while protecting its brand equity.

In particular, it was argued, mistakes by high-profile organizations and/or individuals should be disclosed in a timely and accurate manner; related communications should recognize the agony and suffering of the victims and describe concrete steps to be taken in order to avoid error repetition.

Perhaps more importantly, in the long run, successful crisis management will ultimately challenge the ability of communication experts representing the wrongdoer to leverage their client's brand power. In fact, the latter can be *augmented* by a carefully designed and administered campaign disconnecting the brand's "weak links" from its defining nucleus.

REFERENCES

Andrews, A.P., Simon, J., Tian, F., & Zhao, J. (2011). The Toyota Crisis: An Economic, Operational and Strategic Analysis of the Massive Recall. *Emerald*, 34.

Jones, G.H., Jones, B.H., & Little, P. (2000). Reputation as Reservoir: Buffering Against Loss in Times of Economic Crisis. *Corporate Reputation Review*, 3, 1.

Kotler, P., & Gertner, D. (2002). Country As Brand, Product, and Beyond: A Place Marketing and Brand Management Perspective. *Journal of Brand Management*, 9.

Pope, J. (2012). Emory University Sent False Data to Rankings Groups For More Than A Decade: Report. *The Huffington Post*, August, 17.

Salzman, M. (2013). What Does Lance Armstrong's Scandal Teach Us About Personal Branding? *Forbes*, January, 1.

www.thedailybeast.com/newsweek/2010/02/03/toyota-s-digital-disaster.html, published 2/2/2010, retrieved 5/2/13.

TOWARDS A NOVEL PERSPECTIVE ON THE ACADEMIC USE OF MOBILE LEARNING APPLICATIONS: A CASE OF UNIVERSITY STUDENT PERSPECTIVES

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ABSTRACT

The voluminous research on mobile adoption often emerges from the premise that technological affordances (mainly ease of use and perceived usefulness) motivate the decision to adopt and ultimately trigger the actual adoption of mobile technologies. This framework, though cogent and plausible, fails to account for presage conditions such as compulsive decisions for adoption of mobile technologies. In scenarios where educators impose the decision for student adoption of mobile technologies, technological affordances cannot be assumed to motivate actual adoption of technologies as students adoption is a consequence of their reaction to the authoritative decisions rather than technological qualities. To address this unique condition of compulsory adoption, we reversed Venkatesh et al's (2003) Unified Theory of Acceptance and Use of Technology (UTAUT) to account for the "universal" adoption and to understand student perceptions of use at the post-compulsion phase. The study, therefore, investigates University of Technology Third Year Information Technology and Fourth Year B. Tech Human Resources Management students' perceptions towards mobile instant messaging (MIM) following their educators' imposition of MIM as the mainstay lecturer-student consultative strategy/mode in their respective courses. Findings suggest that requiring students to use MIM for academic consultations resulted in student habitual, addictive and compulsive use of MIM in their modules. Although academically productive knowledge sharing and collaborative practices were reported in both courses, there were some subtle variations in student receptions of compulsive use of MIM with implications for pedagogical delivery.

INTRODUCTION

The South African mobile communication architecture has witnessed a sporadic surge in the adoption and domestication of mobile devices. The mobile phone adoption experience though a fairly recent phenomenon on the South African communication scene, has been profoundly impressive. For instance, as at October 16, 2012, there was an estimated 29 million mobile phone users in South Africa compared to 6 million users of desktop computers (Inter-gate Immigration, 2012). Similarly, Gartner, a global technology research firm, predicted that smartphone penetration in South Africa will hit 80% by 2014 (Rao, 2011). The uptake of mobile internet data had been correspondingly commendable. In February 2011, SA is ranked 5th in the World for mobile data usage (Rawlinson, 2011).

At South African universities, a surging appropriation of mobile technologies was reported. For instance, the University of Cape Town's Centre for Educational Technology (2010) reports a 98% uptake of mobile phones among students and academics (Centre for Educational Technology, 2010). Since young adults are often enrolled at university, it is envisaged a majority of them is using cell phones for various purposes. The

Kaiser Family Foundation (2007) reports that young adults are among the early adopters of mobile technology in South Africa. Their 2007 national study demonstrates that 72% of the 15-24 age group surveyed had access to a cell phone. The commendable uptake of mobile phones in South Africa has been precipitated by a constellation of propitious communicative conditions / circumstances namely, the subsiding prices of low-end mobile phones, free SIM cards, reliable Internet connectivity, strong network infrastructure and generally cheaper tariffs on mobile data compared to stand alone desktop computers.

Consistent with the widely popularised tradition of the Technology Acceptance Model, many African studies on mobile adoption (Renaud and Van Biljon, 2008, Richards and Van Belle, 2007; Mtega, Bernard, Msungu and Sanare, 2012) and elsewhere (Wang and Liao, 2008; Jayasingh and Eze, 2010; Daud, Kassim, Said, Noor, 2011) often affirm the connection among technological affordances, mobile users' decisions to adopt mobile technologies / applications and the actual application. The central theme with the Technology Acceptance Model and its variants, however, is that roaming user's decision to adopt technology is often conscious and voluntary. Particularly the decisions to adopt and ultimate use mobile technologies are often tied to the technological affordances (*perceived usefulness, perceived ease of use*) and promoting context (*facilitating conditions*) and community (*social influence*) of adopting the mobile device/ application. This conception of voluntary use, thus, potentially downplays or fails to adequately account for conditions where educators adopt a unilateral or authoritative decision on student adoption of mobile communication to influence their educator-student academic interaction and information sharing. In such a scenario, student mobile use is mandatory, unconscious and often almost "universal" as students feel compelled to meet the requirements of the module.

Mindful of the unique presage conditions of academic compulsion and almost "universal" adoption, the extended TAM model had to be reversed to cater for this complexity. Our study thus employs a reversed version of Unified Theory of Acceptance and Use of Technology (UTAUT) to unravel Informational Technology (IT) and Human Resource Management (HRM) students at South African university's perceptions of a mobile application (WhatsApp) post "compulsive" adoption. The mobile application, WhatsApp, was adopted to enhance educator-student knowledge sharing and academic networking and students were required to use it as an official consultation space.

The rest of the paper is modelled as follows, a brief theoretical framework is provided, followed by a research methodology, data analysis processes, presentation of findings, discussions, study implications and a conclusion.

THEORETICAL FRAMEWORK

The Unified Theory of Acceptance and Use of Technology (UTAUT) provided a theoretical lens for this study. It was rooted from a merger of eight theories, models and conceptual frameworks popular in Information Technology for behavioral intention and decision to adopt new technology. Diffusion of Innovation, Theory of Reasoned Action (TRA), Technology Acceptance Model (TAM), Motivational Model, Theory of Planned Behavior (TPB), Combined TAM-TPB, Model of PC Utilization, and Social Cognitive Theory contributed in the development of the UTAUT (Venkatesh, Morris, Davis, & Davis, 2003).

UTAUT is defined by four latent variables namely Performance expectancy, Effort expectancy, Social influence, and Facilitating conditions. Furthermore, the theory incorporates four moderating effects to the latent variables namely gender, age, experience and voluntariness. These latent variables and moderating effects constructs influence behavioral intention to use technology and actual use of technology. Figure 1, represents the original UTAUT.

RESEARCH MODEL AND ASSUMPTIONS

Since educators' directive of student adoption of the mobile application required all students to download the WhatsApp application and engage on WhatsApp (a requirement all students fulfilled from the onset), the study's model proceeds from an unique assumption of almost "universal" adoption of the mobile application. This means progression from adoption (from the right in Figure 2) towards understanding student perceptions of the mobile learning experience in the post mandatory phase (shift towards variables on the left in Figure 2). Our

model, has four variables: *m-learning adoption*, *habitual behaviour* (or use), *mandatory influence* (mandatory assumed to be happening twice pre and post adoption?), and addictive behavior.

The research model for this study is illustrated on Figure 2.

Figure 1: Original Unified Theory of Acceptance and Use of Technology (UTAUT)

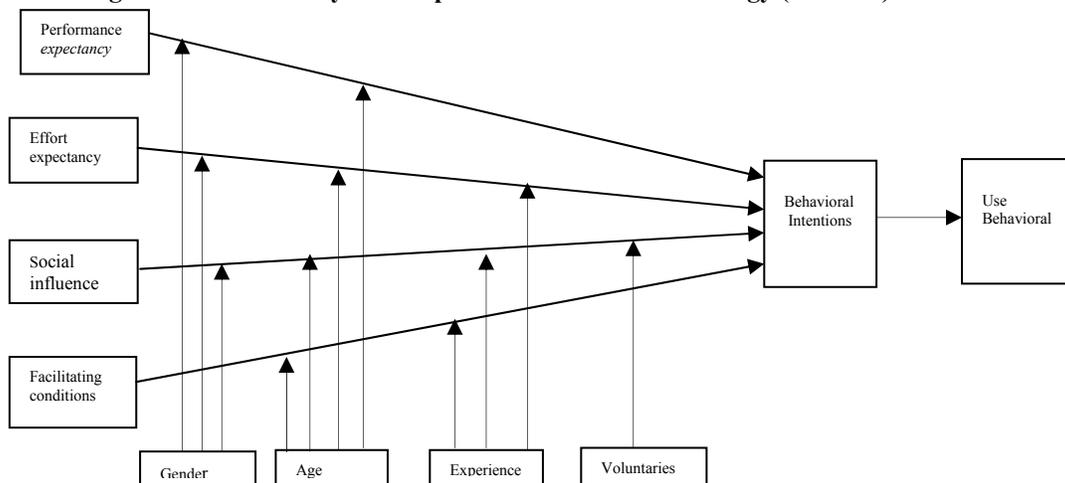
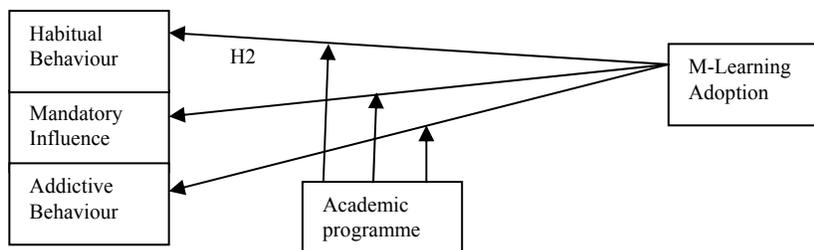


Figure 2: Research model



Habitual Behaviour (facilitating conditions)

In our model habitual behaviour towards MIM was conceived as synonymous with UTAUT’s facilitating conditions. Facilitating conditions describe objective conditions in the environment that observers agree make an act easy to accomplish (Thompson et al 1991). Guthrie (1942) defined habit as a model of related movements, which are obtained by a collection of stimuli in many different situations. Reis, Sheldon, Gable, Roscoe, & Ryan (2000), argue that humans cannot survive without habits, since habits offer a ground for people’s daily practices that define their livelihood. These researchers argue that the compulsive use of mobile applications if reinforced by persistent inducements (symbolic, real or imagined) can trigger student habitual usage of mobile applications. Our assumption, therefore, is:

Assumption 1: Educator’s requirement for student use of WhatsApp will have a positive influence on its habitual use for academic purposes.

In this study, habitual use describes unconscious frequent usage of WhatsApp for educational purposes. Since societal desirability and perceived authenticity of a social practice in a certain context determines habits and daily routines (Gallimore and Lopez, 2002) we assumed that compulsive use in anticipation of academic benefits (social desirability) and productive educator-student interactions, would trigger the natural, inadvertent use of the mobile application.

MANDATORY INFLUENCE

The mandatory construct was adapted from *social influence* construct of UTAUT. Venkatesh, Morris, Davis, & Davis, (2003) define social influence as the extent to which a person perceives that important others believe he or she should use a new technology. Three constructs from the existing models capture the concept of social influence: subjective norm (TRA, TAM2, TPB and C-TAM-TPB), social factors (MPCU) and image (IDT) (Venkatesh, Morris, Davis, & Davis, 2003). Prior studies suggest that social influence is significant in shaping an individual's intention to use new technology (Wang & Wang, 2010; Venkatesh & Davis, 2000; Venkatesh, Thong, & Xu, 2012;). In this study mandatory influence refers to the lecturer's authoritative influence through making WhatsApp academic usage an academic requirement. Consistent with thus we assumed that:

Assumption 2: Educator's requirement for student use of WhatsApp will have a positive influence on its mandatory use for educational purposes

ADDICTIVE BEHAVIOUR

Addictive behaviour in this study describes a neurotic state of absolute absorption and pre-occupation in a particular technology-mediated social practice. Since psychological pre-occupation and immersion in particular activities like texting might distract the students from other activities like face-to-face engagement with peers at particular times, we assumed that:

Assumption 3: Educator's requirement of student use of WhatsApp have a positive influence on student addictive use of it.

ACADEMIC PROGRAMME

Academic programme will mediate the development of perceptions that use of WhatsApp is habitual, mandatory or addictive as an academic tool for learning purposes. This hypothesis is based on speculations that Information Technology students appreciate emerging technologies better than Human resource students hence, making Information Technology students early adopters of new technology than the later. Based on these assumptions the following assumption was tested:

Assumption 4: Habitual, mandatory and addictive use of WhatsApp will be more positive for Information Technology students than for Human resources management students.

METHODOLOGY

The research adopted a positivist paradigm. Positivist paradigm is a natural scientific methodology which holds that research must be limited to what can be observed and measured objectively (Welman, Kruger and Mitchell, 2005:6). The sample were fourth year human resource management (HR) students (n = 63) and fourth year Information students (n = 55). A semi-structured questionnaire measuring students' habitual, mandatory and addictive use of WhatsApp was developed. The open ended questions solicited students' experiences of using WhatsApp for learning. Descriptive statistics were used to analyse student's responses from the two groups, while inductive analysis was used to interpret the qualitative responses.

FINDINGS

The findings were interpreted from the main assumption that WhatsApp adoption has already happened when students were required to download WhatsApp software and were grouped into WhatsApp-based clusters of approximately 10 members per cluster to initiate intra-cluster interactions. The collected data was therefore to determine whether such an interaction resulted in mandatory, habitual and addictive behaviours in using it. The findings are presented in tandem with the hypotheses of the study as shown below.

HABITUAL USE

Assumption 1: Educator's requirement for student use of Use of WhatsApp will have a positive influence on its habitual use by students

We sought student perceptions of the assumption that compulsive WhatsApp use could have positively impacted their habitual use of this mobile application. Habitual use thus describes the internalization of WhatsApp use into the communicative repertoires of these students unconsciously and naturally. Such accommodation of technology use would mean its application in natural, fluent ways like students would do other familiar technologies they grew up with.

Table 1 below shows the results of students' responses from both HR and IT

Table 1: Habitual use of WhatsApp

Academic Programme	Sample size	Agree (%)	Neutral (%)	Disagree (%)
HRM	n = 63	57%	16%	24%
IT	n = 55	78%	12%	9%

Table 1 indicates that 78% of the IT students and 58% of the HRM students concurred that WhatsApp resulted in them adopting it for academic purposes in natural ways (habitually). To the contrary, 24% of the HR students and 9% of IT students disagreed that WhatsApp compulsive use activated their habitual use of it.

MANDATORY USE

Assumption 2: Educator's requirement for student use of WhatsApp will have a positive influence on its mandatory usage for educational purposes by students

In the context of our study, we conceptualised mandatory influence as synonymous with *social influence*. Social influence is embodied in subjective norm concept, defined as "the degree to which an individual perceives that important others believe he or she should use the new system" (Venkatesh et. al., 2003, p. 451).

Table 2: Mandatory use of WhatsApp

Academic Programme	Sample size	Agree (%)	Neutral (%)	Disagree (%)
HRM	n = 63	48%	23%	29%
IT	n = 55	35%	37%	28%

As shown in Table 2, 48% of the HR students and 35% of the IT students confirmed that the educators' requirement for academic use of WhatsApp activated its mandatory use among them. The percentage of HRM and IT students disagreeing to this hypothesis is almost identical.

ADDICTIVE USE

Hypothesis 3: Educator's requirement of student use of WhatsApp have a positive influence on student addictive use of it

Addictive behaviour describes students' neurological absorption and pre-occupation with the academic use of WhatsApp. Once this mobile application has been internalised and accommodated as part of student's communicative repertoires, the assumption was that students would be absorbed and "consumed" in its educational usage.

Table 3 illustrates the findings on the effects of compulsive adoption on student addictive use of WhatsApp.

Table 3: Addictive use of WhatsApp

Academic Programme	Sample size	Agree (%)	Neutral (%)	Disagree (%)
HRM	n = 63	48%	20%	32%
IT	n = 55	52%	17%	31%

As shown in Table 3, 52% of IT students and 48% of the HRM students indicated that the academic requirement to use WhatsApp for academic purposes resulted in them becoming addicted to it. . However, there was a balance between those in disagreement in both courses.

ACADEMIC PROGRAMME

The hypothesis *Habitual, mandatory and addictive use of WhatsApp will be more positive for Information Technology students than for Human resources management students* was tested. This finding suggest this statement was confirmed habitual and addictive uses but not for mandatory usage. This was due to the fact that a semblance of compulsory use was already imputed into IT programmes and modules by virtue of their strong ICT mediated practical orientation. Consequently, students' mandatory appropriation of WhatsApp was not necessarily attributable to educators' compulsive requirements but rather to the demands of the programmes and modules which made the use of various ICTs constitutive of this course's delivery.

DISCUSSION

Habitual use

Although a majority of HRM and IT students concurred that the requirement for educational use of WhatsApp propelled their habitual use of it, there were statistical variations between them. Comparatively more (21 of them) IT students professed this view: a result which resonates with the disciplinary differences in terms of access and productive use of educational technologies. Since IT students tend deal with technological applications, technological problems and issues more often than their counterparts in the social sciences, their higher affirmation of habitual use of WhatsApp, was ideally expected and logical. This finding resonates well with Czerniewicz and Brown's (2007) study on disciplinary differences in the use of ICTs for teaching and learning in five South African higher education institutions. Their study affirms that, essentially, ICTs for learning appears to conform to existing disciplinary approaches, although the natural sciences (particularly Health Sciences) reported the most frequent and varied use of ICTs across all teaching and learning events. Other studies also questioned the connection whether differential differences in the uptake of educational technologies could be tied to differences of the academic communication system. Matzat's (2009) research affirms that differential communication needs across differences explained variations in ICT usage across disciplines. For instance, scholars in fields where research projects had a low visibility (i.e., in fields with a high dispersion of journals), had a higher likelihood of starting to use particular communicative technologies like Internet Discussion Groups to orient themselves through them.

By the same token, there were less IT students compared to HRM who contested the influence of compulsory requirements on habitual appropriation of WhatsApp. For IT discipline, students were naturally expected to experiment with different technologies and dealing with technological issues was a broader imperative of the discipline by design. As such, the natural embrace of new educational technologies was an expected given. The reverse applies for HRM, where the appropriation of technologies could have been restricted to replicative functions of electronic submissions, database searches or typing of assignments. This finding buttressed findings from established literature. Kemp and Jones (2007) confirm that discipline and subject area are significant factors affecting the use of technologies like digital resources in teaching and learning in higher education. Their study maintains that the way academics organize their subject and task differentiation appears to carry over into the use of digital resources for teaching and learning. Since academic success is a function of the particular ways in which students intellectually engage with their academics, educator-directed tasks and activities, students in particular disciplines will naturally strive to function according to their academics' expectations.

Mandatory use

Our identification with Venkatesh et al's (2003) UTAUT, we discerned that mandatory use approximates the theory's "social influence" variable. Social influence emphasises, the extent to which a technology users would feel that some influential others could expect them to use a particular technology. In the case study, educators expected their students to use WhatsApp for educator-student consultation, peer-based engagement and knowledge sharing. We tested whether such requirement of WhatsApp academic use could trigger perceptions of its mandatory use by students. Despite the concurrence of HRM and IT students on the requirements for WhatsApp use, positive influence on student perceptions of its mandatory use, comparatively fewer IT students affirmed this view. This is logical because for IT students, experimenting with different technologies is a legitimate imperative and natural constant for IT professionals and novices. As such, what could have been conceived as "compulsion" by HRM students might have been conceived as the obvious, logical practice by IT students –hence their dissociation with notions of compulsive use of WhatsApp.

The JISC Disciplinary Differences Report (2005) alludes to the distinct information-seeking behaviours and scholarly technology-mediated communication across the various disciplines (Sparks, 2005). For instance, the importance of [online] journal articles for the medical and biological sciences; e-prints (pre and post) in the physical sciences and engineering; a broader mix in social sciences and the particular importance of books in languages and area studies. The Report highlights a slightly higher awareness of subject-based repositories in natural sciences and such awareness was lowest in arts and humanities. Overall, we infer a higher level of technological dependence and awareness in the natural sciences compared to the social sciences, a view confirmed by their aforementioned results.

Although there was a balance between HRM students (29%) and IT students (28%) who disagreed with the positive effects of mandatory use, the rationale for their disagreement to this hypothesis could have varied considerably. For IT students, the basis for the location of MIM under the category of technologies of academic value could have been different from HRM's position. Since the South African young adults are already a text-centric generation using MIM for social purposes, the transition from social to academic use of WhatsApp could have been a steep learning curve for some HRM and IT students-hence their disagreement with the hypothesis. For instance, in South Africa, there was an estimated 13 million users on Mxit, a Java-based GPRS "Internet-lite" chat application (Bremen, 2011). Since the texting culture is a teenage social practice, we envisaged a sizable number of students to have socialised via the platform, reinforcing social production of artifacts than intellectual engagement. For instance, some respondents to Mxit usage associated it with "rude" chatrooms, "nude pictures," "gangster names," and swearing, rather than serious applications or the maintenance of existing friendships (Walton & Donner, 2012).

The hard to substantiate response was the "neutral" option for IT students. This profound uncertainty suggests that the consequences of compulsory adoption could be circumstantial (based on content involved, nature of course, work load involved), and contingent upon student individual identities, situations and social spaces. Walton & Donner, 2012 allude to the complex articulations of digital practices and identities by South African teenagers from townships, which can neither be equated to mobile habitus or middle-class norms, goals, or uses of mobile technologies. However, their enactment of technological identities, does not always display change, agency, and subversive or transgressive cultural appropriations. Extending Walton and Donner's view, the reverse could also be true- that their identities could also transcend or refuse to embrace the Internet digital identity.

Addictive use

Our prediction of a positive relationship between compulsory use of WhatsApp and its addictive usage by students was confirmed to various proportions across the two courses. There was a marginally higher confirmation in IT compared to HRM (IT=52; HRM=48) as much as there was a respectable balance among those who disagreed in both modules (IT=31; HRM=32). While the marginal confirmation could be attributed to student with strong technology-mediated academic identities immersed in WhatsApp, the disconfirmation could as well be indicative of "digital strangers" struggling to access or resisting the academic use of perceivably social technologies. With regard to access, although South Africa boasts of over 50 million mobile subscribers (ITU, 2011) and a data-intensive country, Walton and Donner (2012) allude to the paucity of reliable estimate of statistics on data-ready and data-using mobile subscribers. In connection with digital strangers, however Czerniewicz's (2009) suggests that her 2007 survey on 10 000 South African students' use of ICTs demonstrates the prevalence of digital strangers. She reports that 22% of these students still lack both experience and

opportunities of ICT usage judging from their limited exposure to computers and limited off campus access to computer technologies.

The middle ground, “neutral” responses for both HRM and IT has multiple meanings. Perhaps after having been exposed to WhatsApp and other local MIM applications like MXit for over half a decade, addiction could have been a psycho-social condition they might have fully recovered from. Alternatively, the neutral responses are illustrative of student skepticism about “academic addiction.” Alternatively, this evokes an uncertainty arising from unclear/ unknown consequences of a novel technology students have not explored about enough. The use of social networking sites [and instant messaging] remains a new emerging phenomenon among young adults at college (Kirschner & Karpinski, 2010). Perhaps, the middle ground might also be an expression of the metamorphosis of complex digital identities at work. As Walton and Donner (2012: p. 6) suggest, “Young people’s prior experiences and dispositions have shaped a digital “habitus,” and this results in distinct and divergent attitudes toward digital and mobile resources.”

Academic discipline

For all aforementioned three hypotheses, both student clusters confirmed all but one of them. The only hypothesis the IT students were ambivalent about was whether the requirement to use WhatsApp activated their compulsory use. For this hypothesis, the “neutral” (37%) response outweighed their “agree” response (35%) suggesting that perhaps, they were already using WhatsApp for academic-related activities long before their educator made its academic use compulsory. Overall a larger proportion of both HRM and IT groups were either ambivalent or disagreed with the view that the academic requirement to use this MIM triggered their mandatory use of it.

IMPLICATIONS FOR PEDAGOGY

The study has the following implications for pedagogy:

- There were some disciplinary variations in student habitual use of MIM (post compulsion) based on content taught and disciplinary communicative practices. IT students expressed higher positive affirmations of compulsory adoption on their habitual use of MIM than their counterparts. As such, educators may broaden the use of MIM for HRM students by developing strategies for its seamless integration with existing widely accessed technological platforms like the learning management systems.
- The marginal differences among the two student groups in *addictive* academic use of MIM suggests that a constellation of other factors (such student technological confidence, technological efficacy, perceived relevance and perceived convenience of the technology) influence student immersion and pre-occupation with technology. Therefore, educators need to explore student technological “habitus” (Bourdieu, 1972), the pedagogical imperatives and wider social influences on effective usage of MIM.
- Lastly, student ambivalence about the effects of compulsive adoption on their mandatory use of technology suggests that the compulsive adoption’s impacts on compulsory use remained untested and demands further academic scrutiny. A more productive strategy would be to compare voluntary MIM use with compulsory adoption to establish the possible implications on student mandatory use.

CONCLUSION

The current study examined the effects of compulsory adoption on student habitual, mandatory and addictive use of MIM. The findings confirmed a positive connection between compulsory adoption and student habitual use, compulsory adoption and student addictive use, but a negative relationship between compulsory adoption and student mandatory use of MIM. It seemed disciplinary variations in communicative practices, orientation towards task execution using educational technologies and information seeking behaviors explained the two student clusters’ varying perceptions about the impact of compulsory adoption on student use of MIM for educational purposes. Overall, however, the IT students expressed ambivalent views about the impact of educators’ requirement to adopt WhatsApp on their compulsory academic use of this technology. Academic programme, nonetheless, had some positive influence on all variables-habitual, mandatory and addictive use of MIM.

REFERENCES

- Centre for Educational Technology. (2010). Projects. Retrieved March 12, 2011, from <http://www.cet.uct.ac.za/projects>
- Bourdieu, P. (1972). *Outline of a theory of practice*. (R. Nice, Trans.). Cambridge, MA: Harvard University Press.
- Bremen, N. (2011). Why Mxit is Africa's largest social network. Memeburn. Retrieved from <http://memeburn.com/2010/10/why-mxit-is-south-africas-largest-social-network/>
- Czerniewicz, L. (2009). Cell phones and Sakai- increasing access for all? Boston, Massachusetts, MA. 8-10 July, 2009.
- Czerniewicz, L. & Brown, C. (2007). Disciplinary differences in the use of educational technology. In D. Remenyi, ICEL 2007: 2nd International Conference on e- Learning. New York. 28-29 June. 117-130.
- Daud, N., Kassim, N., Said, W., Noor, M. (2011). Determining Critical Success Factors of Mobile Banking Adoption in Malaysia. *Australian Journal of Basic and Applied Sciences*, 5(9): 252-265.
- Gallimore, R., & Lopez, E. M. (2002). Everyday routines, human agency, and ecocultural context: Construction and maintenance of individual habits. *The Occupational Therapy Journal of research*, 22 (7).
- Guthrie, E. R. (1942). *The forty-first Yearbook of the National Society for the Study of Education Part II: The Psychology of Learning*. Bloomington: Public School Publishing Company.
- Henry J. Kaiser Family Foundation (2007). 'Young South Africans, Broadcast Media, and HIV/AIDS Awareness: Results of a National Survey', 2007, <http://www.kff.org/southafrica/upload/7614.pdf> (Accessed 06/05/2013)
- Intergate Immigration (2013). Online Media Stats for South Africa. Posted 16. October 16, 2012 <http://www.intergate-immigration.com/blog/online-media-stats-for-south-africa/>(Accessed 06/05/2013)
- ITU. (2011). Mobile-cellular subscriptions per 100 inhabitants, 2001–2011. ITU Free Statistics. Retrieved from http://www.itu.int/ITU-D/ict/statistics/material/excel/2011/Mobile_cellular_01-11.xls
- Jayasingh, S and Eze, U. (2010). The Role of Moderating Factors in Mobile Coupon Adoption: An Extended TAM Perspective. *Communications of the IBIMA*, 1-13.
- Kemp, B., & Jones, C. (2007). Academic Use of Digital Resources: Disciplinary Differences and the Issue of Progression revisited. *Educational Technology & Society*, 10 (1), 52-60.
- Kirschner, P. & Karpinski, A. (2010). Facebook and academic performance. *Computers in Human Behavior*, 26, 1237–1245.
- Matzat, U. (2009). Disciplinary Differences in the Use of Internet Discussion Groups: Differential Communication Needs or Trust Problems? *Journal of Information Science*, XX (X) 2009, pp. 1–19.
- Mtega, W. Bernard, R., Msungu, A., and Sanare, R. (2012). Using Mobile Phones for Teaching and Learning Purposes in Higher Learning Institutions: the Case of Sokoine University of Agriculture in Tanzania. *Proceedings and report of the 5th UbuntuNet Alliance annual conference, 2012* pp 118-129
- Rao, M. (2011). Mobile Africa Report 2011: Regional Hubs of Excellence and Innovation, MobileMonday, March 2011.
- Rawlinson, C. (2011). Infographic: Cell phone usage + South African mobile stats (Posted Feb 3, 2011)

<http://www.chrisrawlinson.com/2011/02/infographic-cellphone-usage-sa-mobile-stats/>(Accessed 06/05/2013)

Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., & Ryan, R. M. (2000). Daily well-being: The role of autonomy, competence, and relatedness. *Personality and Social Psychology Bulletin* , 26, 419-435.

Renaud, K and van Biljon, J. (2008). Predicting Technology Acceptance and Adoption by the Elderly: A Qualitative study. *SAICSIT 2008*, 6-8 October 2008, Wilderness Beach Hotel, Wilderness, South Africa

Richards, F. and Van Belle, J-P (2006). Determinants of 3g mobile video adoption by the South African mobile consumer. *Proceedings of IRMA International Conference*, , Idea Group, pp. 772-776.

Sparks, S. (2005). JISC Disciplinary Differences Report. Rightscom Ltd, London, UK

Thompson, R. L., Higgins, C. A., and Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization, "M IS Quarterly(15:1), 1991, pp. 124-143.

Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science* , 46 (2), 186-204.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly* , 27 (3), 425-478.

Venkatesh, V., Thong, J. Y., & Xu, X. (2012). Extending The Unified Theory of Acceptance and Use of Technology. *International Journal of Electronic Commerce Technology: MIS Quartely* , 36 (1), 157-178.

Walton, M., Donner, J., 2012. *Public access, private mobile: The interplay of shared access and the mobile Internet for teenagers in Cape Town*. Global Impact Study Research Report Series. Cape Town: University of Cape Town.

Wang, H., & Wang, S. (2010). User Acceptance of Mobile Internet Based on the Unified Theory of Acceptance and Use of Technology: Investigating the Determinants and Gender Differences. *Social Behavior and Personality*, 38(3), 2010 , pp. 415-426.

Wang, Y-S. and Liao, Y-W. (2008). Understanding Individual Adoption of Mobile Booking Service: An Empirical Investigation. *Cyberpsychology & Behavior*, 11(5), 2008

Welman, C. Kruger, F. & Mitchell, B. 2005. *Research Methodology*. Cape Town, Southern Africa (Pty) Ltd: Oxford University Press. *Behavior and Personality* , 38 (3), 415-426.

LAND USE MANAGEMENT POLICIES AND SMALL BUSINESSES WITHIN SOUTH AFRICA'S CITIES

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ABSTRACT

This paper argues that the single land use strategy within cities has adverse effects on small businesses such as limited access; locational constraints; infrastructure and services constraints; time constraints; competition amongst small businesses; and inability to decrease unemployment and eradicate poverty. Therefore, the purpose of this paper is to describe how land use in cities is executed and its subsequent effects on small businesses. The paper uses the literature related to land use management and observations from Polokwane City to explain the effects of land use management on small businesses. Consequently, the paper concludes that land use management in South Africa's urban areas must be used as a strategy to provide advantageous economic conditions for the operation and survival of small businesses.

INTRODUCTION

Globally, most land use management policies are popular for the promotion of single land use rather than mixed land uses (McMillen & McDonald, 1999; Gallent & Kim, 2001; Rossi-Hansberg, 2004; Qian, 2010; Butsic, Gaeta & Radeloff, 2012; Koroso, van der Molen, Tuladhar & Zevenbergen, 2013; Mincey, Schmitt-Harsh & Thureau, 2013). The common zones which define land uses within the majority of urban areas are residential, commercial popularly known as the central business district, industrial and green land zone known as public open spaces (Gallent & Kim, 2001, Butsic *et al.*, 2012; Mincey *et al.*, 2013). However, single land use is considered to be undemocratic as people are restricted in terms of what to do on their properties, uneconomical because it restrict land supply and increase adjacent land values and also environmentally unquestionable as in most cases it protects land with very limited preservation value (McDonald, 1995; Gallent & Kim, 2001; Mincey *et al.*, 2013). Additionally, access to urban land becomes difficult for the poor who are in most cases desperate to engage in economic activities (Koroso *et al.*, 2013). Practically, these land use management policies limit the ability of lands to diversify socially, culturally and economically (Gallent & Kim, 2001; Qian, 2010). However, only a few countries, mostly within developed nations, have adopted the mixed land use strategy in order to promote diversity and integration of social, cultural and economic activities, amongst other reasons.

Regardless of the important value that is attached to land use management, Houston which is one of the major cities in North America is without zoning (McDonald, 1995; McMillan & McDonald, 1999; Qian, 2010). According to Qian (2010) Houston City is known for adopting the traditional free market philosophy which views land zoning as violation of what is supposed to be private property and personal rights. The urban structure and land use of the city were informed by transportation infrastructure, enormous projects and private land use controls, amongst others, as a result of advantages for oil and gas (McDonald, 1995; Qian, 2010). However, there are a number of challenges related to the lack of zoning in the city. One of the challenges includes the encroaching of certain land uses on adjacent places which informs the continuous changes of land uses in the city (McDonald, 1995; McMillan & McDonald, 1999). For instance, heavy industrial and commercial activities are mixed with residences while some of the houses are adjacent to vacant unproductive land and toxic sites such as landfills (Qian, 2010). Seemingly, even though Houston is not zoned, the city is economically developed. The economic development might be due to the fact that areas of economic potential are at the disposal of every one including small businesses.

Houston's case provides evidence that land use management policies in urban areas have the ability to influence the success of small businesses. It is against this context that this paper describes how land use in cities is executed and its subsequent effects on small businesses. Furthermore, the paper argues that single land use strategy within cities has adverse effects such as limited accessibility of small businesses; locational constraints; infrastructure and services constraints; time constraints; competition amongst small businesses; and inability to decrease unemployment and eradicate poverty. The major areas of focus in this paper are legislative framework of land use management in South Africa; the nature of small businesses; land use management and small businesses specifically in Polokwane City; and, the effects of land use management on small businesses. The paper then concludes that land use management in South Africa's urban areas must be used as a strategy to provide advantageous economic conditions for the operation and survival of small businesses.

A LEGISLATIVE FRAMEWORK OF LAND USE MANAGEMENT IN SOUTH AFRICA

The apartheid spatial planning and land use management in South Africa's cities has been widely documented (Davies, 1981; Simon, 1986; Christopher, 1990, 1997, 2004; Donaldson & Kotze, 2006). With the aid of a number of policies such as the Group Areas Act (Act No. 41 of 1950), people living in urban areas were segregated according to their ethnic language origins and pigmentation (RSA, 2001). Therefore, the apartheid land use management policies shaped urban areas along racial lines, thereby excluding large sections of the population from the economic, social and the environmental benefits (RSA, 2001). Furthermore, this settlement policy resulted in structured social inequalities in the design and land use of urban areas (Christopher, 1997). The Group Areas Act ensured the control of the Black, indigenous and Coloured populations by prescribing places of residences, movements and economic activities among others, simultaneously, controlling the allocation of land for the White population which benefited them socially, economically and politically (Christopher, 1997).

Post-apartheid, the increase of rural-urban migration in search of economic opportunities has in recent years led to the transfer of the rural poor into urban areas (Baycan Levent, Masurel, & Nijkamp, 2003; Rogers & Sukolratnametee, 2009; Kotus & Hlawka, 2010; Geyer, Coetzee, Du Plessis, Donaldson and Nijkamp, 2011; Webb, Bruton, Tihanyi & Ireland, 2012; Sheehan & Rioemena, 2013). However, people who are migrating to urban areas in search of economic opportunities within the business sectors have to comply with the current land use management policies of those specific towns and cities. It is in this context that, an analysis of some of South Africa's current land use management policies which guide economic activities including small businesses, their growth and operations within urban areas is provided. There are three legislative frameworks which are the White Paper on Spatial Planning and Land Use Management; National Spatial Development Perspective; and, Spatial Planning and Land Use Management Bill, which the paper discusses respectively.

White Paper on Spatial Planning and Land Use Management of 2001

The White Paper on Spatial Planning and Land Use Management of 2001 provides principles and norms which collectively form a common vision of land use planning and management in South Africa. The principles and norms derived from the Development Facilitation Act (DFA) (Act No. 65 of 1995) strive to promote sustainability, equality, integration, efficiency and fair and good governance in order to stimulate economic development opportunities in rural and urban areas, amongst other objectives (RSA, 1995a; RSA, 2001). According to the White Paper on Spatial Planning and Land Use Management, the DFA features three general objectives which include the general principles for land development, land development objectives and development tribunals. The general principles for land development reject low-density, segregated, fragmented and mono-functional development and instead promote compact, integrated and mixed-use settlements. Whereas, land development objectives developed by all municipalities should take into consideration the need to plan land use in an integrated and strategic manner. Development tribunals which are established in all the provinces facilitate the speedy consideration of land use change and development applications (RSA, 2001).

However, in order to achieve the objective set in this White Paper, land must be used wisely. Accordingly, wise land use entails planning and management of land uses in an integrated manner, linking social

and economic development with environmental protection and enhancement. Given this background, the spatial planning, land use management and land development system focussed on linking forward planning and development control executed through the municipal Integrated Development Plan and land Use Management, respectively. In addition, land use management prevents uncontrolled land developments and promotes various types of desirable land development supported by various sectors of the society. The White Paper however, outlines the land use management activities as the regulation of land use change and the regulation of green fields' land development, amongst others. In completing these activities, it was recommended that all the municipalities compile a spatial development framework which consists of four major components. The components include the policy for land use and development; guidelines for land use management; a capital expenditure framework indicating where the municipality intends spending its capital budget; and, a strategic environmental assessment (RSA, 2001). Additionally, municipalities must also develop land use scheme which illustrates the different land uses within their areas of jurisdiction including the areas of economic development and growth. If the principles of this White Paper are put into practice by municipalities through the land use management policies, the ability of small businesses to contribute to the economic development will be recognised. Therefore, municipalities' spatial development framework and land use scheme must support the development of small businesses specifically by locating them in areas where there is potential growth as prescribed by the White Paper.

National Spatial Development Perspective of 2006

One of the key priorities of South Africa's government is to increase economic growth and promote social inclusion especially within towns and cities (RSA, 2006). Therefore, the National Spatial Development Perspective (NSDP) provides a set of principles for guiding infrastructure investment and development decisions; a description of the spatial manifestations of the main social, economic and environmental trends that should form the basis for a shared understanding of the national space economy and interpretation of the spatial realities and the implications for government intervention (RSA, 2006).

There are five developed principles which in support of the broader growth and policy objective of the government address issues of economic development. The first principle states that rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of other policy objectives, among which poverty alleviation is key. The second principle indicates that government has a constitutional obligation to provide basic services to all citizens wherever they reside. The third principle aims that government spending on fixed investment should be focused on localities of economic growth and/or economic potential in order to gear up private sector investment, to stimulate sustainable economic activities and create long-term employment opportunities. The fourth principle advises that efforts to address past and current social inequalities should focus on people, not places. Lastly, in localities where there is economic potential, the government should concentrate mainly on human capital development by providing education and training; In order to overcome the spatial distortions of apartheid, future settlements and economic development opportunities should be channelled into activity corridors and nodes that are adjacent to or that link with the main growth centres (RSA, 2006).

In support of the development of small businesses in South Africa, the NSDP principles are based on a number of assumptions. The first assumption asserts that location is critical for the poor to exploit growth opportunities. The second assumption declares that poor people who are concentrated around economic centres have greater opportunity of gaining from economic growth. The third assumption affirms that areas with demonstrated economic potential provide greater livelihood and income protection because of a greater diversity of income sources and are most favourable for overcoming poverty. The fourth assumption indicates that the poor make rational choices about relocating to areas with greater economic opportunities. The last one declares that government must ensure that policies and programmes are in place to make certain that the poor are able to benefit fully from growth and development opportunities in such areas (RSA, 2006). Basically, the NSDP provides conditions that are suitable to support small businesses located in towns and cities. The NSDP recognises that land use development and management can be used as a tool to ensure that small businesses operating in urban areas contributes to poverty alleviation, job creation and ultimately economic development.

Spatial Planning and Land Use Management Bill of 2012

In response to the apartheid land use management which resulted in a system of unequal access to economic and social resources in almost all the urban areas (Christopher, 1990, 2004), the government had to develop a number of policies including the Spatial Planning and Land Use Management Bill to help deal with this challenge. The objectives of this Bill are to provide for a uniform, effective and comprehensive system of spatial planning and land use management in South Africa; ensure that the system of spatial planning and land use management promotes social and economic inclusion; and, provide for the sustainable and efficient use of land (RSA, 2012). Additionally, the Bill recommends that spatial planning, land development and land use management must promote spatial justice; spatial sustainability; spatial resilience; efficiency; and, good administration.

Chapter five of the Bill emphasises issues of land use management in South Africa. The chapter specifies that the land use schemes that municipalities develop in partnership with the public, must include suitable categories of land use zoning and regulations for the entire municipal area. Furthermore, municipalities must comply with the environmental legislation and take into consideration any environmental management tool adopted by the relevant authority. Simultaneously, land use schemes must give effect to and be consistent with the municipal spatial development framework in order to promote economic growth, social inclusion, efficient land development and the minimal impact on public health and the environment including natural resources. Furthermore, the scheme must include regulations indicating procedures and conditions related to land use and development in all the zones, a map consisting of different zones of the municipality and a register of all amendments to such a land use scheme. However, the scheme can be amended by the municipality based on public consultations if it is in the public interest in order to advance a disadvantaged community and to promote the vision and development goals of the municipality through land use change.

The Spatial Planning and Land Use Management Bill fully supports the notion that land use development and management must be practiced in a manner that will promote efficient land use which will then support economic growth and social inclusion. The bill further confirms that it is through land use development and management that small businesses can be given enabling circumstances to operate and grow as desired. The next section of this paper discusses the nature of small businesses, specifically in South Africa.

THE NATURE OF SMALL BUSINESSES IN SOUTH AFRICA

It has been documented that in practice small businesses are mostly synonymous with the informal economy (Baycan Levent *et al*, 2003; Geyer, Coetzee, Du Plessis *et al*, 2011; Webb *et al*, 2012; Sheehan & Rioemena, 2013). According to the National Small Business Act (Act No. 102 of 1996), a small business is defined as “separate and distinct business entity, including co-operatives enterprises and non-governmental organizations, managed by one owner or more which, including its branches or subsidiaries, if any, is predominately carried on in any sector of the economy” (RSA, 1996, p. 2). The National Small Business Act and the White Paper on National Strategy for the Development and Promotion of Small Business in South Africa of 1995 further categorised the small businesses into four categories, namely, survivalist enterprises; micro-enterprises; small enterprises; and, medium enterprises.

Survivalist enterprises are joined by people who are unable to find paid jobs of their choices. The businesses do not require much of capital investment and skills training in order to be developed. Although the activities of this category should assist in eradicating poverty, usually the generated income still falls under the poverty line given the large number of people, especially women who engage in survivalist activities. Furthermore, survivalist economy operates within the informal economy as they are mainly unregulated (RSA, 1995b, 1996; Geyer *et al*, 2011). Micro-enterprises are also small businesses which are made up of the owner, a few family members and a maximum of one or two paid employees with the basic business skills and training. Similarly, the survivalist enterprises, micro-enterprises also lack business licences; value-added tax registrations; formal business premises; operating permits and accounting procedures. However, contradictory to the survivalist enterprises, micro-enterprises have the ability to advance into viable small formal businesses depending on the particular sector and access to the needed support (RSA, 1995b, 1996).

The other category is known as small enterprises which consists of established businesses which can provide employment opportunities for five to fifty people. Customarily, the small enterprises are owner-managed with a more complex management structure; likely to operate from formal business premises; are tax registered; and, they comply with other formal requirements. These enterprises usually are involved in retailing, manufacturing, professional services and consultation, amongst others (RSA, 1995b, 1996). The last category is the medium enterprises which provides an average of 200 employment opportunities and capital assets of about R5 million, excluding property. Medium enterprises are sometimes owner or manager controlled through the shareholding or community control base with a complex management structure (RSA, 1995b, 1996). The activities of this category of businesses are the main contributors of the economic development as compared to other categories. For the purpose of this paper small businesses refer to all those which consists of the characteristics of the survivalist enterprises category. The characteristics of small businesses within the survivalist category include being owner-managed by unskilled and untrained people; operated by family members who in most cases are undocumented, unregistered and/or tax-avoiding business and not operating from formal business premises, amongst others (RSA, 1995b, 1996; Baycan Levent *et al*, 2003; Geyer *et al*, 2011).

These small businesses usually operate within the informal economy where they are concerned with legitimate activities that are mostly outside the formal institutional boundaries set by the government but not necessarily illegal (Geyer *et al*, 2011; Webb *et al*, 2012; Sheehan & Rioemena, 2013;). However, small businesses through the informal economy produce goods and services that in most cases are wholly legal (Webb *et al*, 2012). The goods and services include, amongst others; hairdressing, carpentry, sewing, arts and crafts, pottery, selling of fruits and vegetables and other goods which are usually practiced through the popular street hawking. However, the unpaid tax revenue by these small businesses has adverse effects on the development of the national infrastructure and its economy (Sheehan & Rioemena, 2013). Simultaneously, the small businesses are indirectly benefiting from the tax generated by registered businesses (Baycan Levent *et al*, 2003; Geyer *et al*, 2011). Webb *et al* (2012) asserted that the majority of small businesses delay their registration to be recognised within the formal economy on the basis that they have to ensure that the market opportunity is viable and sustainable as well.

According to Sheehan & Rioemena (2013) the motivation behind the establishment of small businesses is mostly the desire of economic well-being and benefits attached to these types of businesses. Furthermore, small businesses are a response to limited and unstable employment opportunities especially for the poor and uneducated people (RSA 1995b, 1996; Cunningham, 2001; Sheehan & Rioemena, 2013). However, some of the disadvantages of small businesses are that they are not guaranteed easy access to credit; their operations are usually smaller in scale; and they are more labour-intense as compared to many businesses within the formal sector (Geyer *et al*, 2011; Webb *et al*, 2012; Sheehan & Rioemena, 2013). The implications of these disadvantages are that small businesses are rarely financed by financial institutions such as banks and as a result they cannot afford the technology and infrastructure needed to successfully run their businesses. In many countries including South Africa, small businesses also tend to be gender oriented (Baycan Levent *et al*, 2003; Geyer *et al*, 2011). For example, the majority of people who engage in small businesses within the survivalist enterprises especially related to food production and distribution are women (Geyer *et al*, 2011), which in most cases low-incomes are experienced as a result of the perishable nature of the food. In contrast, the majority of men's small businesses are associated with more technical activities which are not associated with food production and circulation. These activities include carpentry, arts and crafts and car mechanics, amongst others. These types of small businesses are clearly observable within South Africa's urban spaces as they mostly operate in front of shops and alongside the roads. Furthermore, most of these businesses do not have formal infrastructure except for the limited few in selected areas within urban areas. In some cases, some businesses operate in restricted areas due to lack of spaces in areas demarcated for their activities. The succeeding section explains the relationship between land use management and small businesses in Polokwane City.

POLOKWANE CITY'S LAND USE MANAGEMENT AND SMALL BUSINESSES

In response to the national policies guiding land use management in South Africa, Polokwane Municipality has developed and adopted a number of guiding documents which include the Spatial Development Framework

(SDF), Town Planning Scheme, Integrated Development Plan (IDP) and the Local Economic Development (LED) Strategy, amongst others. However, this paper's focus is on the Town Planning Scheme which explains different land uses within the municipality, specifically in Polokwane City. The paper's attention will be more on areas zoned for businesses in order to determine the place of small businesses. In addition, the LED Strategy which emphasizes the types of small businesses and how they are supported by the municipality will be analysed. By use of the two documents, the relationship between land use management and small businesses in Polokwane City is explained.

Polokwane Town Planning Scheme of 2007 restrict any person the right to use any land or to erect or use buildings thereon in a manner or for any purpose which is prohibited by the provisions of any condition registered against the title deed under which such land is held, or imposed by legislation in respect of such land. This implies that land use is prescribed by the scheme in all the zones. The scheme is guided by principles which include discouraging illegal occupation of land and promoting efficient and integrated land development in order to promote integration of social, economic, institutional and physical aspects of the area of concern (Polokwane Local Municipality, 2007). Additionally, the scheme encourages active involvement of community members and promotes sustainable land development at the required scale, amongst other principles. Therefore, the scheme defines the use zones of Polokwane City further indicating the extent of uses in each use zone. Polokwane City is traditionally zoned, with the zones such as residential, commercial, industrial and green land zones. In the commercial zone, a number of businesses are accommodated and catered for by the scheme. The scheme divided businesses in four categories as Business 1 to 4, 1 for less-intense or small businesses and 4 for heavy businesses. The land uses identified in Business 1 use zone are single family residence, offices, medical consulting rooms, shops, public garage and restaurant, amongst other uses (Polokwane Local Municipality, 2007). However, these specified types of businesses require a formal structure in which they render their services and should also be registered. Apparently, if small businesses had a place in the town scheme, they would need to be considered in a category that best suits their characteristics. Therefore, the categorization of businesses in Polokwane Town Planning Scheme confirms that land use management policies have adverse effects on small businesses.

Regardless that the scheme does little to accommodate small businesses which are dominant within the informal sector; the LED Strategy of Polokwane Local Municipality of 2008 does recognise small businesses and their contribution towards economic growth. The strategy tend to focus more on survivalists enterprises operating within the informal economy as they are considered as transition phases in becoming part of the formal economy (Polokwane Local Municipality, 2008). Therefore, the municipality offers support to small businesses because the informal economy makes a significant component of Polokwane City's economy. However, in the city, the majority of small businesses rely on income from social grants and informal loans secured within the family structure as capital (Polokwane Local Municipality, 2008).

In support of small businesses in Polokwane City, the municipality formalised two of the so called satellite markets which specialise in convenience items in the city. The first market is based in the Pick 'n Pay Taxi Rank located in corner Church and Devinish Streets whereas the second market's location will still be determined based on pedestrian movements (Polokwane Local Municipality, 2008). Furthermore, the municipality identified a site for a tourists market in the city which is located between Market and General Joubert Streets and the second site will be around the western side of the city centre (Polokwane Local Municipality, 2008). Alongside Landros Mare and Market Streets which are known as pedestrian corridors, small businesses are given permission to render their services on the pavements provided that pedestrian movements, access to businesses premises and vehicular movements are not interrupted. The municipality either provided coloured spaces on the pavements, paved spaces with permanent steel display benches or permanent hawker stalls with roofs for small business operations (Polokwane Local Municipality, 2008). These initiatives are meant to support and provide favourable conditions for small businesses in an attempt to eradicate poverty and reduce unemployment. As already noted, the businesses contribute to the economic well-being of the city. The next section discusses the effects of land use management policies on small businesses, using inferences drawn from Polokwane City.

EFFECTS OF URBAN LAND USE MANAGEMENT ON SMALL BUSINESSES

Seemingly, land use management policies have the ability to affect the operations of, and the benefits associated with small businesses. To a large extent, South Africa's land use management policies encourage measures that will assist in providing favourable conditions for small businesses operating within towns and cities. Economic development and growth is one of the core values of the White Paper on Spatial Planning and Land Use Management; National Spatial Development Perspective; and, Spatial Planning and Land Use Management Bill. These policies inform land use management in the country which through towns and cities should then provide favourable conditions for the survival of small businesses especially located in urban areas. However, land use management in urban areas simultaneously provides adverse effects on small businesses which are presented as follows:

- Limited access to small businesses

Spatial planning and land use management policies in cities promote single land uses. These single land uses imply that small businesses cannot be situated in any parts of the city of their own choice. In most cases, small businesses locate themselves in the commercial zone within formal businesses. As a result, these small businesses can only be easily accessible to people who are within the commercial zone.

- Locational constraints

In most cases, small businesses are clustered around commercial areas where there are high volumes of pedestrians. However, locations that these businesses operate on are not zoned for small businesses. This is due to the fact that the majority of town planning schemes do not recognise the roles that these businesses play in the economic realm; therefore, they are not allocated formal spaces in cities. For example, the majority of small businesses are mainly found around taxi-ranks.

- Infrastructure and services constraints

As a result of lack of operating spaces in cities, the other constraints experienced by small businesses is lack of and/or limited infrastructure and services such as water and electricity. For example, in Polokwane City most businesses which specialize in fast foods use fire or gas as their source of energy for cooking. Moreover, the water they use for cooking is in most cases asked or bought from the nearby shops and restaurants and this is due to lack of recognition of small businesses by the town planning schemes.

- Time constraints

Small businesses are in most cases forced to operate during time slots which align with those of formal businesses. Usually small businesses are operational between morning around 06h00 and late afternoon hours around 19h00. Time limitations are also a result of the single land use adopted in most cities because people have to vacate the spaces into residential areas. Therefore, time limitations affect the ability of the businesses to generate more income and offer their needy customers services after hours as it becomes unsafe to do so in the presence of few people.

- High competition amongst small businesses

The congestion of small businesses around a few points in cities means there is high competition amongst the businesses. As most of these businesses offer similar services and products, profit making is not always guaranteed. Therefore, owners of small businesses have to always do their best to attract and keep their customers. For example, in the satellite market located in the Pick 'n Pay Taxi Rank, most of the small businesses mainly specialise in selling fast foods and fruits and vegetables.

- Inability to decrease unemployment and eradicate poverty

Despite the huge number of small businesses in cities, most of small businesses provided limited and unsustainable job opportunities. Most of the owners and their households still live in poverty because the income generated by the businesses is usually still below poverty line.

CONCLUSIONS

The paper confirmed that most land use management policies in cities adopted the single land use rather than mixed land uses which are classified as residential, commercial, industrial or green land zones. Furthermore, the paper indicated that single land uses limit the integration of social, economic, cultural and environmental diversity which to some extent affect the productivity of small businesses. Additionally, the paper provided the legislative framework of land use management in South Africa which looked at the White Paper on Spatial Planning and Land Use Management; National Spatial Development Perspective; and, Spatial Planning and Land Use Management Bill, respectively. Seemingly, these policies fully support small businesses in urban areas as they are considered as one of the economic drivers.

The paper has also showed that theoretically, small businesses are synonymous with the informal economy and further specified the nature of these businesses. Apparently, most small businesses are regarded as survivalist enterprises which offer goods and services such as hairdressing, carpentry, sewing, arts and crafts, pottery, selling of fruits and vegetables and other goods which are usually practiced through the popular street hawking. This paper further discussed the relationship of land use management policies and small businesses in Polokwane City. Then the adverse effects of the relationship were identified as limited access to small businesses; locational constraints; infrastructure and services constraints; time constraints; competition amongst small businesses; and inability to decrease unemployment and eradicate poverty. This paper then recommends that land use management policies including the town planning schemes, should recognise and accommodate small businesses in their development planning and management. The paper concludes that land use management in South Africa's urban areas have the ability to be used as a strategy to provide advantageous economic conditions for the operation and survival of small businesses.

REFERENCES

- Baycan Levent, T., Masurel, E. & Nijkamp, P. (2003). Diversity in Entrepreneurship: Ethic and Female Roles in Urban Economic Life. *International Journal of Social economics*, 30(11), 1131-1161.
- Butsic, V., Gaeta, J.W. & Radeloff, V. 2012. The Ability of Zoning and Land Acquisition to Increase Property Values and Maintain Largemouth Bass Growth Rates in an Amenity Rich Region. *Landscape and Urban Planning*, 107, 69-78.
- Christopher, A.J. (1990). Apartheid and Urban Segregation Levels in South Africa. *Urban Studies*, 27, 421-440.
- Christopher, A.J. (1997). Racial Land Zoning in Urban South Africa. *Urban Studies*, 14(4), 311-323.
- Christopher, A.J. (2004). Linguistic Segregation in Urban South Africa, 1996. *Geoforum*, 35, 145-156.
- Cunningham, W.V. (2001). Breadwinner or Caregiver?: How Household Role Affects Labour Choices in Mexico. *World Bank Publications*, 2743.
- Davies, R.J., (1981). The Spatial Formation of the South African City. *GeoJournal*, 2, 59-72.
- Donaldson, R. & Kotze, N. (2006). Residential Desegregation Dynamics in the South African City of Polokwane (Pietersburg). *Tijdschrift voor Economische en Sociale Geografie*, 97(5), 567-582.
- Gallent, N. & Kim, K.S. (2001). Land Zoning and Local Discretion in the Korean Planning System. *Land Use Policy*, 18, 233-243.
- Geyer, H.S., Coetzee, H.C., Du Plessis, D., Donaldson, R. & Nijkamp, P. (2011). Recent Business Transformation in Intermediate-sized Cities in South Africa. *Habitat International*, 35, 365-274.
- Koroso, N.H., van der Molen, P., Tuladhar, A.M. & Zevenbergen, J.A. (2013). Does the Chinese Market for Urban Land Use Rights Meet Good Governance Principles? *Land Use Policy*, 30, 417-426.
- Kotus, J. & Hlawka, B. (2010). Urban Neighborhood Communities Organized On-line – A New Form of Self-organisation in the Polish City? *Cities*, 27: 204-214.
- McDonald, J.F. (1995). Houston Remains Unzoned. *Land Economics*, 71(1), 137-140.
- McMillen, D.P. & McDonald, J.F. (1999). Land Use Before Zoning: The Case of 1920's Chicago. *Regional Science and Urban Economics*, 29, 473-489.

Mincey, S.K., Schmitt-Harsh, M. & Thureau, R. (2013). Zoning, Land Use, and Urban Tree Canopy Cover: The Importance of Scale. *Urban Forestry and Urban Greening*, Accessed at: <http://dx.doi.org/10.1016/j.ufug.2012.12.005>.

Polokwane Local Municipality. (2008). *Local Economic Development Strategy*. Polokwane Local Municipality, Polokwane.

Polokwane Local Municipality. (2007). *Polokwane/Perskebult Town Planning Scheme, 2007*. Polokwane Local Municipality, Polokwane.

Qian, Z. (2010). Without zoning: urban development and land use controls in Houston. *Cities*, 27, 31-41.

Republic of South Africa (RSA). (1995a). *Development Facilitation Act 67 of 1995*. Government Printers, Pretoria.

Republic of South Africa (RSA). (1995b). *White Paper on National Strategy for the Development and Promotion of Small Business in South Africa*. Government Printers, Pretoria.

Republic of South Africa (RSA). (1996). *National Small Business Act 102 of 1996*. Government Printers, Pretoria.

Republic of South Africa (RSA). (2006). *National Spatial Development Perspective*. Government Printers, Pretoria.

Republic of South Africa (RSA). (2012). *Spatial Planning and Land Use Management Bill*. Government Printers, Pretoria.

Republic of South Africa (RSA). (2001). *White Paper on Spatial Planning and Land Use Management*. Government Printers, Pretoria.

Rogers, G.O. & Sukolratnametee, S. (2009). Neighborhood Design and Sense of Community: Comparing Suburban Neighborhoods in Houston Texas. *Landscape and Urban Planning*, 92, 325-334.

Rossi-Hansberg, E. (2004). Optimal Urban Land Use and Zoning. *Review of Economic Dynamics*, 7, 69-106.

Sheehan, C.M. & Rioemena, F. (2013). Migration, Business Formation, and the Informal Economy in Urban Mexico. *Social Science Research*, Accessed at: <http://dx.doi.org/10.1016/j.ssresearch.2013.01.006>.

Simon, D. (1986). The apartheid city. *Area*, 16, 60-62.

Webb, J.W., Bruton, G.D., Tihanyi, L. & Ireland, R.D. (2012). Research on Entrepreneurship in the Informal Economy: Framing a Research Agenda. *Journal of Business Venturing*, Accessed at: [doi:10.1016/j.jbusvent.2012.05.003](http://dx.doi.org/10.1016/j.jbusvent.2012.05.003).

INTRODUCTION TO A NEW SCIENTIFIC DISCIPLINE: MANAGEMENT OF ALLSELVE'S ENLIGHTENMENT AND EMPOWERMENT

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ABSTRACT

Corporations in modern capitalism society define the human beings as a means of producing performances, while utilizing them as resources and tools in the process of management in order to maximize profits from the stockholders' and top-level management's viewpoint for the sake of efficiency and effectiveness of the management only. In the situation, humanity is overlooked and the extreme diversions in the income structures are deepened, while one percent of people govern the rest 99% of people. Hence, people suffer from relative poverties, while feeling unhappy, even though they have been much better in materially-abundant and convenient living environment. The theories based on modern knowledge management and practices have the clear limitations, if not impossible, in solving the critical issue of humanity deprivation in the modern society. I would like now to create and show clearly an alternative academic field and ways and means to recover the genuine humanity and thus to solve problems people encounter in routine lives. The new academic field and concepts I would like to introduce is the Management of AllSelve's Enlightenment and Empowerment (here after MOSEE).

INTRODUCTION

Concepts of a New Academic Area: the Management of AllSelve's Enlightenment and Empowerment

The concept of the Management of AllSelve's Enlightenment and Empowerment (MOSEE) refers to enlightenment and empowerment of human spirits or consciousness. That is, it transforms people who are the major entities of corporation management, while the transformation change people to have the really built-in freedoms, and therefore inspired human relationships in joyful ways with family members, other people, jobs, money, capitalism systems involved. While individuals are transformed, the MOSEE also transforms the organizations and communities, such as families, corporations, societal organizations, one's own and other countries, world societies, globe natures and the universe. The MOSEE has developing powerfully workable ways and means that are applicable to people and organizations, by which everybody and every organization enlighten and empower with each other and transform all collectively. MOSEE is an consolidated and integrated concept of Korean traditional philosophies and oriental enlightenment by utilizing western management science analytical methodologies.

THEORETICAL REVIEWS

Definition of Enlightenment

The enlightenment in MOSEE means that people realize that human beings are the origin being so that the being is a part of the whole and all, and at the same time, the whole and all selves are not separated from the whole at all. We can understand easily the hologram concept. People create their own Being and are able to manage the reality with concentration of the management of the Being in the freedom and the value involved. Otherwise, people tend to just do lots without their own Being attached to the survival business games in order to take the ownership and gain the profits included, which I call the management for Possession, not the management for concentration of Being.

Comparison of two laws

Diminishing law of resources due to the management for Possession based on attachment to the survival business games, and enlarging law of resources due to the management for concentration of own Being. Management for possession may lose the future of people, since past experiences affect present's decision-making which controls future. Only if commitment to future creates being for present, future comes here around present

Table 1: Comparison of Law for Management for Possession and Law for Management for Being

Diminishing law due to Management for Possession	Enlarging law due to Management for Life path to enlightenment
Being Surviving life.	Life for enlightenment
Management for possession	Management for Being
CHRONOS(Man-made time)	KAIROS(Universe time)
No Being(Identity) Unreality	Real Being reality
Religion: God for myself only	Religion: God for All people
Survival Adaptation living no freedom	Open minded Give in most valuable things
Reactive Self Reaction to circumstances Ego(various conditions required)	Restoring process for integrity Authenticity Source of influence to get job done Creating new Being make new environment and circumstances
Reactive Human is Bio Robot equipped with basic software	Real Being Freedom Space Create new boundless realm of possibilities
I am separate unit on my own	I am a part of whole and all and whole and all itself
Continuous changes something from something	Create something new from nothing that is everything
Past→ Present→ Future	Past Present ← Future

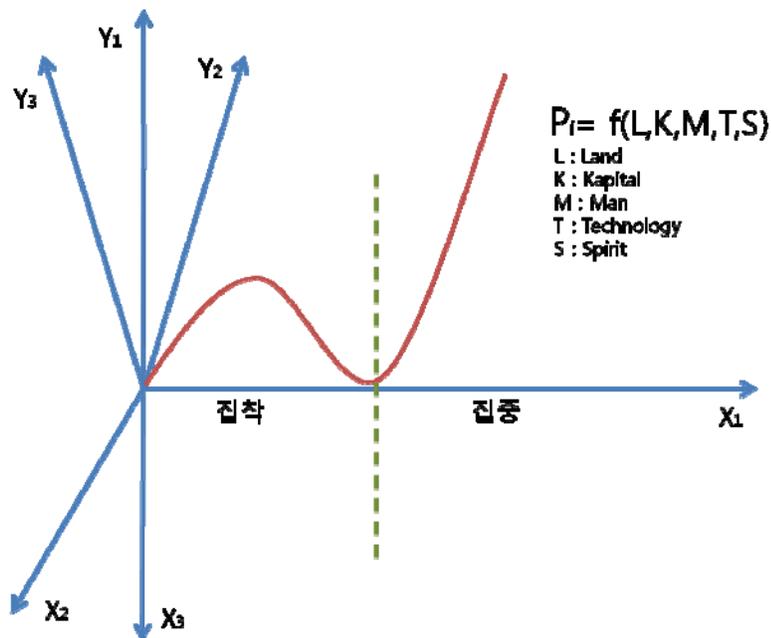
Comparison of two curves

Diminishing curve of performance due to the management for Possession and enlarging curve of performance due to the management for Concentration of Being.

CONCLUSION

Individuals and corporations may create highly qualified human consciousness through the aid of MOEE, which may produce a new world or relationships among people. Knowledge management and informative education, along with lands, capitals, human resources, and technology and development skills, as the determinants for the management performance, define outer generated capacity in the four dimensions (??). MOEE adds human conciseness in the five dimensions as inside generated capacity, which results in integrated capacity which combines outside and inside generated capacity. The integrated capacity renders integrity and completeness of authentic creation.

Figure 7: Comparison of two curves



REFERENCES

Aspect, A. (1981). Experimental tests of realistic local theories via Bell's theorem. *Phys. Rev. Lett.*, 47, 460~463.

Bell, J. S. (1965). On the Einstein Podolsky Rosen paradox. *Physics*, 1, 195~200.

Bohr, N. (1958). *Atomic physics and human knowledge*. John Wiley and Sons: New York.

Boyer, T. (1969). Deviation of the black-body radiation spectrum without quantum physics. *Physical Review*, 182, 1374~1383.

Boyer, T. (1970). Quantum zero-point energy and long range forces. *Annals of Physics*, 56, 474~503.

Eigen, M. (1971). Molecular self-organization and the early stages of evolution. *Quarterly Reviews of Biophysics*, 4, 149.

Einstein, A., Podolsky, B. & Rosen, N. (1935). *Phys. Rev.*, 47, 777.

- Flam, F. (1994). Lighting a route to the new physics-with photons. *Science*, 265, 2013~2014.
- Flower, C. (1981). Comparative Population Dynamics in Large Animals. *Dynamics of Large Mammal Populations*, ed. Charles Flower and Time Smith, Wiley: New York.
- Groblacher, S. (2007). An experimental test of non-local realism. *Nature*, 446, 871-875.
- Haken, H. (1995). Principles of Brain Functioning, A Synergetic Approach to Brain Activity. *Behavior and Cognition*, Springer.
- Langton, C. G. (1990). Computation at the edge of chaos. *Physica D*, 42.
- Laws, R. M. (1981). Experiences in the study of large animals. *Dynamics of Large Mammal Populations*, ed. Charles Flower and Time Smith, Wiley: New York.
- Puthoff, H. E. (1987). Ground state of hydrogen as a zero-point-fluctuationdetermined state. *Phys. Rev. D*, 35, 3266~3269.
- Puthoff, H. E. (1990). The energetic vacuum: implications for energy research. *Speculations in Science and Technology*, 13, 247~257.
- Puthoff, H. E. (1989). Source of vacuum electromagnetic zero-point energy. *Physical Review A*, 40 (9), 4857~4862.
- Rizzolatti, G. (1996). Premotorcortex and the recognition of motoractions. *Cognitive Brain Research*, 3, 131-141.
- Rueda, A., Haisch, B. & Cole, D.C. (1995). Vacuum zero-point field pressure instability in astrophysical plasma and the formation of cosmic voids. *Astrophysical Journal*, 445, 7~16.
- Sears, F. W. (1958). *Mechanics, Heat and sound*. Addison-wesley: Reading, MS.
- Tatterson, K. G. (1997). News & Analysis: Boom! From light comes matter. *Photonics Spectra*, 31.
- Weber, R. (1986). *Dialogues with Scientists and Sages: The search for Unity*. Routledge & Kegan Paul: London.
- Weiss, P. (1964). The living system. *Beyond Reductionism : New perspectives in the life sciences*, Beacon, Boston.
- Wynne-Edwards, V. C. (1965). Self-Regulating systems in Populations and Animals. *Science*, 147, 1543.
- Jae-Yoon Rhee (2012). *MOSEE*, Pulipmunhwasa: Korea.

A MULTI-DISCIPLINARY ARGUMENT FOR THE ALIGNMENT OF TWO DISCIPLINES – MARKETING AND DESIGN

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ABSTRACT

Managing design is an aspect of marketing's activities, but relatively little is known about the connections between marketing and design. This paper examines the interconnected and uneasy relationship between design and marketing. Managing this tension is important for marketers, whose viewpoint of differentiation is a combination of design excellence and market execution. A comparative study, integration of arguments and the case study approach are followed. The convergence of cultures represents an opportunity for marketing and design to build collaborative models for the development of products, services and brands. A contextual evaluation of this research, using a grounded theory approach, reveals that there is a convergence of design and marketing thinking reflecting a growing understanding of cultural factors and is driven by economic imperatives such as increased competition, growing virtual worlds and greater consumer demands.

INTRODUCTION

Marketing and design are interconnected. Innovative designs open up new markets and clever design rekindles in a mature market. Well-designed products communicate quality and value to the consumer. Logotypes, leaflets, packaging and signage provide visual cues to reinforce the values of the organisation to the customer. Advertising and promotional activity make consumers aware of new products and give a message to the consumer about the product and/or service available (Bruce & Daly 2007). Aldersley-Williams (1994) stated in Balmer and Gray (2003:974) that “designers talk strategy, but like pretty shapes and colours.” He failed to acknowledge that there is a growing body of design management educators, researchers and strategists who are contributing valuable new thinking about using design as a strategic resource. Yet, six years previously Aldersley-Williams (1994) argued that it is imperative for designers, marketing and other managers to work together when creating corporate identity schemes. However, Powell (2007) argues that the problems remain current in identifying concerns by business owners and managers about “creative mavericks”.

DEFINING THE CONCEPTS OF MARKETING AND DESIGN

Kotler & Armstrong (2010) defines Marketing as “A social and managerial process by which individuals and businesses obtain what they need and want through creating exchanging value with others. In a narrower business context, marketing involves building profitable, value-laden exchange relationships with customers. Hence marketing encompasses the process by which a business create value for customers and build strong customer relationships in order to capture value from customers in return. Kristensen & Gronhaug (2007) refers to marketing as “The management process which identifies, anticipates, and supplies customer management requirements efficiently and profitably”. They argue that this interpretation refer to the cognitive aspects of marketing such as identification and anticipation as well as execution and efficacy. Beverland (2005) state that the broad view of design covers a wide range of activity encompassing aesthetics, ergonomics, ease of manufacture, efficient use of materials, and product performance and a variety of functions relating to marketing, such as promotional materials, image and logo, brands, interiors, architecture, and the consumer-firm interface. Design is therefore defined as “An activity that translates an idea into a blueprint for something useful whether it

is a car, a building, a graphic, a service or a process". Managing design is an aspect of the activities of marketing. For example, at one level marketing requires design expertise to meet user needs and communicate brand values through a myriad of elements, namely products, packs, corporate identity, advertising and environments such as a retail outlet or a restaurant. Kristensen & Gronhaug (2007) also state that design incorporate "creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both users and the manufacturer". Marketing and design are both concerned with the understanding of something that does not yet exist. Both are concerned with the delivery of an imaginary state.

CONFLICTING VIEWS ON DESIGN AND MARKETING

Kristensen & Gronhaug (2007) argue that marketing managers and designers are educated in very different schools and traditions. The consequence of that is a lack of communication. Designers are less capable of arguing their case than marketers, who are challenged in their ability to perceive graphically. Therefore, marketing managers use their "left", designers their "right brains". The key focus of marketing related to product innovation is market demand, access to markets and profitability. In design the criteria are related to the user needs and the quality and beauty. I.e., marketing concerns the masses and design the individual. However, there are cases where marketing also considers the individual, although on a small scale. Raz, Piper, Haller, Nicoda, Dusart & Giboreau (2008) are of the opinion that the major stakeholder differs too. Marketing is primarily concerned with the paying customers, and they may also be co-creating value. The work organisation of marketing is based on formal schemes and promotion may follow a fixed pattern. In particular, this seems institutionalised in fast moving consumer goods companies and in the consulting profession. In design a similar structure may be found in the large multinational agencies, but in most smaller design consultancies the studio culture is informal. Designers who work "in-house" in companies follow the measure of the organisation. This can cause problems because the designers are usually few, and they do not fit into the formal pattern in a large organisation. Some companies have large design organisations and have therefore found ways to integrate the design organisation with the rest of the firm, for instance Philips.

Designers are innovators and trendsetters who attempt to initiate change, to make a leap of imagination, and produce an idea. Those who design products are also people, ordinary people who apply their skills to develop new ideas and products (Vogel, Cagan & Boatwright, 2005). Design departs from the realm of pure aesthetics to create objects that serve human needs. Design reflects human needs and wants, as well as the dominant ideas and artistic perceptions of the time. The designer must accommodate economic, aesthetic, technological, and commercial constraints and arrive at a synthesis. He is a "creator of form" who understand creation in the context of predefined imperatives established by other professionals, and places human values over technological ones (De Mozota 2003). The common perception of designers is that their approach to their subject matter differs from the rational analysis and scientific rigor of the business disciplines. Designers are perceived by other functions with intrigue and frustration. Designers view design perfection as "a spiritual quest – a goal to be achieved in stages" that lies in contrast with the output performance orientation of other functions (Beverland 2005). For the majority of designers, the concept of "rational analysis" is too deterministic. The reason being that they are strongly individualistic in their expressionism and vitality towards design (Heskett 2002).

Molotch (2003) reports that designers are suspicious of market research because "market research isolates a product from the context of its purchase or use and cannot predict how it might catch on with time and exposure. Despite the functional role of design within the realm of marketing, Von Stamm (2003) writes of the continuing gap between marketers and designers when she writes "the lack of understanding of the differences leads many managers to view design and creativity as something close to black art, something which cannot be managed and is therefore better left alone". Marketers simply do not trust designers with a brand. They perceive the design function to be a subsection of marketing focusing more on product development, whilst the latter is responsible for decision making and management (Holland et al 2009). A major problem facing organisations today is that a few designers and marketers have the skills to manage a range of product design services, in the broadest sense, that are required to develop a comprehensive approach to innovative organic product and service development (Vogel, Cagan & Boatwright, 2005). Marketing is perceived as both a way of thinking that focuses on satisfying customer needs, as well as a set of activities in which organisations apply this way of thinking in

the world. Marketers think about ideas, goods and services that satisfy the organisation's goals as well as the needs of customers (Klopper, Berndt, Chipp, Ismail, Roberts-Lombard, Subramani, Wakeham, Petzer, Hern, Saunders & Myers-Smith 2006). Marketing is furthermore perceived as a philosophy and a management orientation that emphasises customer satisfaction. It is a set of activities used to implement this philosophy. Marketing is therefore a process that anticipates and satisfies consumer needs by means of mutually beneficial exchange processes. Marketing wants to achieve this in a profitable manner through efficient managerial processes (Lamb, Hair, McDaniel, Boshoff & Terblanche 2008). Marketing is by its very nature concerned with the interaction between the organisation and the marketplace, while design is an activity that translates an idea into a blueprint for something useful whether it is a car, a building, a graphic, a service or a process.

A focus group was conducted amongst 20 individuals (10 designers and 10 marketing practitioners) to determine how designers and marketers interpret key words used in their contemporary professional communications. A list of twenty (20) keywords was drawn up by a group of experienced design and marketing professionals. These 'experts' were selected on the basis of their long experience of the design-marketing interface. Keywords were printed on a survey form and the multi-disciplinary design participants and marketing practitioners were invited to write one word, the first word which comes to mind, against each keyword listed. This was done spontaneously and the participants did not spend time thinking about it. Four groups of five (5) were compiled, consisting of two groups of multi-disciplinary designers and two groups of marketing practitioners. The two groups of multi-disciplinary participants compared their results and the marketing practitioner groups followed a similar approach. Each group leader briefly presented his/her results, and the main areas of difference were identified according to each key word. The participants were then requested to summarise their findings into five broad categories according to their discipline. These categories were identified by the participants (i.e. multi-disciplinary designers and marketing practitioners) as characteristic of both designers and marketers as professionals in the market place). This is illustrated by Table 1 below.

Table 1: Key conflicts between design and marketing

CATEGORY	DESIGN	MARKETING
<i>Approach</i>	Innovative through design	Systematic
	Non-profit	Profit orientated
<i>Attitude</i>	Creative and original through design according to personal preference	Creativity and originality in marketing is driven by the needs and wants of the target market
	Not process driven (I.e. not structured or systematic)	Not process driven (I.e. not structured or systematic)
<i>Focus</i>	Trendsetters	Trend supporters
	Inter-connected with design idea	Communicate design idea through advertising
<i>Goal</i>	Satisfy own design needs	Satisfy consumer needs
<i>Inclination</i>	Non-rational thinking, emotional sculptures	Rational thinking to inform the market
	Non-strategic thinkers	Strategic planners
	Not market research focused	Strong focus on market research

Source: Researcher's own construct

From Table 1 it can be deduced that marketing requires design expertise to meet user needs and communicates brand values through a myriad of elements, namely products, packs, corporate identity, advertising and environments such as a retail outlet or a restaurant. Design, on the other hand, is a visual realisation of marketing and conveys, in particular, brand values to the consumer.

CONVERGENCE OF EDUCATION ON DESIGN AND MARKETING

Marketing requires design expertise to meet customer needs and communicate brand values through a myriad of elements, namely products, packages, corporate identity, advertising and environments, such as a retail outlet or a restaurant (Bruce & Daly 2007). Riezebos (2003) argues that in a brand strategy, several instruments are used to achieve set goals. For several of these instruments, design plays a large role. Design can differentiate products (goods and services), create a unique selling position and arouse feelings of desire and interest. Whether it be technical performance, style, reliability, safety or ease of use, design can make qualities visible. Consumers can be influenced in their decisions by design; it is therefore advisable to handle this instrument with care. Bell, Ledolter and Swersey (2006) argue that design management and marketing have many common intersections. In the marketing that was developed in the 1960s, design became ever more important. In the beginning design was understood as a marketing instrument, it further developed itself and today it can be seen on the same level as management. Today's management theories speak of an equal partnership between marketing management, product management and design management. Marketing and design connect in many different ways to produce a given result, ranging for example from working with graphic specialists to produce a new letterhead, or the development of a new brand of chocolate, to a different kind of motor vehicle. Marketing practitioners – whether they are based in a service, retail or manufacturing environment, spend a significant proportion of their time working with design. Scientists can invent technologies, manufacturers can make products, engineers can make them function and marketers can sell them, but only designers can combine insight into all these things and turn a concept into something that is desirable, viable, commercially successful and adds value to other people's lives. For the marketing professional, design management entails managing those corporate activities that generate products and corporate communications, which aim to optimise customer satisfaction and business success (Bruce & Daly 2007). Considering this, there is a definite need for designers and marketers to become more respectful towards the role played by each within the organisation. Respect that can be achieved through increased education about the function performed by both designers and marketers in their support for organisational goals.

CONVERGENCE OF BEHAVIOUR BETWEEN DESIGN AND MARKETING

It can be argued that both designers and marketers need to converge their aim of focus to obtain answers to the following questions. Answers to these questions can not only enhance the ability of the designer to develop products that will deliver increased consumer value and satisfaction, but will also empower marketers to communicate customer value more successfully to their target market. The questions are What is our business?, Who is the customer?, What is the value to the customer?, What will our business be?, and What should it be? (Webster 2009). Both designers and businessmen will therefore have to learn to practice marketing as an innovative force in itself. They have to learn that the truly "new" does not, as a rule, satisfy demands that already exist. It creates new expectations, sets new standards, markets possible new satisfactions. Innovative design and marketing therefore create markets. New product designs always needs new markets which were not even conceivable until the new technology created new designs which stimulated new consumer demands (Maciariello 2009). Trueman and Jobber (1998) argue that design is more than a functional activity and is connected to marketing in three different ways, namely:

- At the product level, good design leads to the production of quality goods and services that can improve image and increase the consumer's perceived value of new products, so that they command a higher retail price in the marketplace.
- At the process level, designers can interpret, integrate and communicate new ideas... (so) likely to speed up and increase efficiency..... and reduce time to market.
- At strategic level in terms of brand building..... and the development of a corporate design culture.

Bruce and Daly (2007) also state that designers are not trained to be strategic thinkers, but are a creative resource that can make a strategic contribution in terms of developing new market opportunities and revitalising new markets. In addition, the Design Council of Britain (2006) understands the role of design in business as follows: "Scientists can invent technologies, manufacturers can make products, engineers can make them function and marketers can sell them, but only designers can combine insight into all these things and turn a concept into something that is desirable, viable, commercially successful and adds value to other people's lives".

It is against the background provided above, that Table 2 illustrates the potential areas for marketing and design to connect to produce a given result.

Table 2: Potential area for the convergence of designer and marketing aims

DESIGN	MARKETING
Innovative design developments	Innovative marketing of designs
Setting of trends	Marketing of such trends to stimulate demand
Profit generation through innovative designs	Profit maximization through the marketing of new, fresh and innovative designs that meet target market needs
Design creativity should be aligned with target market preferences	The marketing of creative designs to stimulate target market preferences
Interact with marketing professionals on target market preferences for new design ideas (e.g. via consumer research)	Communicate new design ideas through advertising to the target market
Align own design needs with target market preferences to enhance consumer value and satisfaction	Satisfy consumer needs through continued provision of consumer value. This can be achieved through a stronger collaboration with designers to inform them of target market preferences, whilst respecting the individuality of designer designs
Increase rational thinking aligned with the inputs of marketing professionals enhance consumer value in a competitive market environment to ensure continued business growth and survival	Rational thinking to inform the market about new designs to stimulate demand and enhance market share
A market research focus could enhance business through the delivery of increases consumer satisfaction and value. This can be achieved through a stronger alignment with marketing professionals	Strong focus on market research. Such research should be communicated back to designers to ensure the accommodation of consumer preferences and enhancing consumer value

Source: Researcher's own construct

POTENTIAL SYNERGIES

Kotler and Rath (1984) argue that “design is a strategic tool” enabling marketers to match customer requirements to a product’s performance, “fitness for purpose”, quality, durability, appearance and price. Thus, Archer and D’Ambrosio (1976) has described designing as the “trick of discovering which set of attributes prospective purchasers would value and of discovering a product configuration embodying them at the right price”. For each market segment the mix of attributes and the price the customer is prepared to pay will differ. The argument of Kotler and Rath (1984) is that consumers’ perceptions of the product are shaped by its configuration and ability to convey “value for money” in comparison with alternatives. Putting effort into design is one way in which organisations can add value to their products and hence command higher prices. However, in mature industries in which many products are competing for the same market, value for money alone is not enough. Where many products represent value for money, design is also regarded by marketers as an ingredient needed to make their organisations products distinctive, or to “differentiate” them from the competition (Walsh, Roy, Bruce & Potter 1992). An evolutionary market environment, growth in competition as well as globalisation necessitate organisations to become more customer focused in their product and brand image designs. A stronger interaction between designers and marketers would require designers to interact with marketing professionals on a regular basis to establish the preferences of the target market for which they design, or to whom they want to communicate the organisational brand. Marketers, on the other hand, will have the responsibility to communicate new designs or the organisational brand image to the target market to stimulate awareness, increase demand and enhance market share. The ultimate goal, being increased profitability and design preference amongst consumers, can then be achieved.

OPPORTUNITY FOR A NEW PARADIGM BASED ON CONVERGENCE OF DESIGN AND MARKETING THINKING

Both marketers and designers are converging in their agreement on the value of systems and holistic thinking, and investing much intellectual effort into defining problems and generating creative alternatives. Strategic designers are no longer strange lonely artists detached from the world around them, but 'people' confident in their roles in multi-disciplinary teams. An example of research demonstrating such benefits may be found in Ivins and Holland (1999). Three views of the current relations between marketing and design are offered by Figure 1.

Figure 1: Evolution of Design and Marketing Relationship



Source: Adapted from Ivins and Holland (1999)

Possibility of integration

The convergence between marketing and design is revealed as a natural phenomenon by Figure 1, but important questions arise about how to proceed. Questions about issues such as cultures and semantics need attention, and in building the models further questions arise about added value to corporate brands, storytelling, narrative and leadership. The complex challenges of designing a corporate identity and building a corporate brand through designing a great customer experience need high quality multi-faceted thinking.

CONCLUSIONS

The paper makes a case for the integration and successful development of marketing and design, and identifies challenging issues to achieve a greater understanding and ultimate convergence of the marketing and design disciplines. It is important to begin with a thorough investigation of practices and educational provision. This is essential in relation to education, since a relatively small number of progressive design schools are ready to engage in developing a new paradigm. An agenda of issues to be addressed to further explore the potential benefits of cooperation needs to be drawn up and the authors offer the following framework for future study, namely an investigation into the characteristics and cultures of design and marketing environments, an evaluation of the processes and models used by marketing and design for strategic branding, a study of the semantics of the two disciplines: key terminology used by both disciplines; an evaluation of cross-disciplinary teamwork to develop new models to support creative teams; and the development of more multi-disciplinary courses – particularly at postgraduate level- which integrate design and marketing [and other functional areas] thinking.

REFERENCES

ALDERSLEY-WILLIAMS H. 1994. *Corporate Identity*. London: Lund Humphries.

- ARCHER S.H. & D'AMBROSIO C.A. 1976. *The theory of business finance: a book of readings*. New York: Macmillan.
- BALMER J. & GRAY E. 2003. Corporate Brands: what are they? What of them? *European Journal of Marketing*, 37(7/8):972-997.
- BELL G.H., LEDOLTER J. & SWERSEY A.J. 2006. Experimental design on the front lines of marketing: Testing new ideas to increase direct mail sales. *International Journal of Research in Marketing*, 23:309-319.
- BEVERLAND M.B. 2005. Managing the Design Innovation – Brand Marketing Interface: Resolving the Tension between Artistic Creation and Commercial Imperatives. *Journal of Product Innovation Management*, 2:193-207.
- BRUCE M. & DALY L. 2007. Design and marketing connections: creating added value. *Journal of Marketing Management*, 23(9-10):929-953.
- DE MOZOTA B.B. 2003. *Design Management – Using design to build brand value and corporate innovation*. Allworth Press. New York.
- DESIGN COUNCIL UK. 2006. Lessons from America. *Design Council*. Available from: <http://www.designcouncil.org.uk/en/Design-Council/Files/System-Files/Download>. Accessed: March 2009
- HESKETT J. 2002. *Toothpicks & Logos: Design in Everyday Life*. Oxford: Oxford University Press.
- IVINS J. & HOLLAND R. 1999. Reflections on the operation of large multi-disciplinary projects in engineering, design and design management. *IEEE Journal*, 42(4):371.
- KLOPPER H.B., BERNDT A., CHIPP K., ISMAIL Z., ROBERTS-LOMBARD M., SUBRAMANI D., WAKEHAM M., PETZER D., HERN L., SAUNDERS S. & MYERS-SMITH P. 2006. *Marketing – Fresh Perspectives*. Pearson Publishing: Cape Town.
- KOTLER, P. & ARMSTRONG, G. 2010. *Principles of Marketing – Global and Southern African Perspectives*. Cape Town: Pearson Education Limited.
- KOTLER P. & RATH A. 1984. Design: a powerful but neglected strategic tool. *Journal of Business Strategy*, Emerald Group Publishing, Bingley.
- KRISTENSEN, T. & GRONHAUG, K. 2007. Can design improve the performance of marketing management? *Journal of Marketing Management*, 23(9-10):815-827/14-132.
- LAMB C.W., HAIR J.F., MCDANIEL C., BOSHOFF C. & TERBLANCHE N.S. 2008. *Marketing*. Oxford University Press: Cape Town.
- MACIARIELLO J. 2009. Marketing and innovation in the Drucker Management System. *Journal of the Academy of Marketing Science*, 37(1):35-43.
- MOLOTCH H. 2003. *Where Stuff Comes From*. New York: Routledge.
- POWELL S. 2007. Organisational Marketing, identity and the creative brand. *Journal of Brand Management*, 15(1):41-56.
- RAZ, C., PIPER, D., HALLER, R., NICOD, H., DUSART, N. & GIBOREAU, A. 2008. From sensory marketing to sensory design: How to drive formulation using consumer's input? Food quality and preference journal, 19(2008):719-726.
- RIEZEBOS R. 2003. *Brand Management*. Prentice-Hall: Harlow.

TRUEMAN M. & JOBBER D. 1998. Competing through design. *Long Range Planning Journal*, 31(4):595-605.

VOGEL, CAGAN & BOATWRIGHT. 2005. *The design of things to come*. New Jersey: Pearson Education.

VON STAMM B. 2003. *Managing Innovation, Design & Creativity*. Chichester: Wiley. 2003.

WALSH V., ROY R., BRUCE M. & POTTER S. 1992. *Winning by design*. Blackwell Publishers: Cambridge.

WEBSTER JR F.E. 2009. Marketing IS Management: The wisdom of Peter Drucker. *Journal of the Academy of Marketing Science*, 37(1):20-27.

PROTECTING DOMINANT TECHNOLOGY IN CONTEXT OF TECHNOLOGICAL DISCONTINUITY

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ABSTRACT

The alignment between technological dominance and market leadership strategies has guaranteed to TOTVS, one of the main global developers of ERP solutions, to keep its dominant design, in spite of using a programming language, considered by many experts as outdated. The company combines the acquisition of small companies and strategic alliances with rivals in the sector, to incorporate to its middleware the challenging innovation that could risk the leadership of its dominant technology. Technical leadership of TOTVS integrates the premises of open innovation to keep up to new technology and, at the same time, it uses business acquisition to protect its dominant technology.

INTRODUCTION

Schumpeter (1982) first identified innovation in technology as a production factor, but it only became a strategic tool for business modeling by the end of last century. Some 40 years ago, however, studies on the function and the utility of innovation in production area polarized the attention of many researchers and experts, interested on knowing more deeply the cycle of market dominant models and the leading factors that make technological innovation a competitive advantage for industries. Studies on nature, type and process of innovation draw on a fundamental characteristic of the innovation cycle, the technological discontinuity (Anderson; Tushman, 1990). Technological innovation works under a cycle that could be shortened to the following phases: dominant technology; maturing/improvement period; challenging/ selection period (fermentation period); and replacement (discontinuity) period.

The maturing process of a dominant technology is normally associated to a fermentation period (Campbel, 1969), where many challenging technologies gladiate to become the dominant. And the period where a traditional technology is replaced by a new one is characterized by the descontinuity period.

This paper considers the case of the protection of a dominant technology in periods of technological fermentation (fight of challanging technologies to become the dominant one) by one of the most important Brazilian IT application developer, operating globally among 25 countries in the world. The company has being able to systematically manage the risks of technological discontinuities to its dominance leadership.

A technology/innovation ruling the market, normally distinguishes itself through three basic features: (a) greater operational efficiency; (b) smaller production cost; and (c) alternative radicality. The two first features are intrinsically associated to each other. That is, if a technology works more efficiently, it would necessarilly result into less production cost. These features, bolstering the rulling position of a technology, could be associated to its degree of radicality unrivaled by the challanging technologies, but it could also be simply associated to a greater degree of incremental sophistication.

As noticed before, competition for market dominance of a technology is typical of fierce competitive environment (Campbel, 1969; Jenkins, 1975; e Landes, 1983), where technologies of low production cost and

higher productivity are critical. Because of reachness of alternative ideas during such periods, Basalla (1988) calls it technological diversity period. Serendipities and technical breakthrough either in product design, quality features or process simplicity, are common.

In the information technology industry, technological dominance concentrates mainly on possible work solutions allowed by programming languages. For instance, if an IT system, designed through an object-oriented language would be blind to network, it would need to be rewritten if a next generation programming language becomes the dominant one. This is the context of TOTVS Company, object of this study. TOTVS is an international company as an IT services provider. The company owns an Enterprise Resources Planning (ERP) system, market globally, oriented to small, medium and big users. TOTVS responds for about 35% of South American and for 11% of the global market (Totvs, 2012b). The company is in the market for more than 20 years, however, using a senescent programming language, but has been able to deal with the ever challenging IT systems and new programming languages, eventually more capable to deliver efficient solutions. How then a company, whose system bolstering a technology that is at risk, would be able to protect its dominant technological model? In other words, how a company is to face technological discontinuity by keeping the basic product technology?

This paper, therefore, aims at identifying and characterizing TOTVS' protection strategy to its dominant technology model, in a context of permanent challenges from new technologies and system designs.

THEORETICAL PRECEDENTS

The competitiveness of a company is directly dependent on the differentiation elements it distinguishes itself from rivals, especially through its technological dominion. The innovation base, bolstering the company's market position, however, is frequently threatened by technological discontinuity, because of challenging technologies with superior comparative advantages that end up being adopted by a sector companies. The technological discontinuity phenomenon and congruent elements are here revised as a theoretical foundation of this work's objectives.

The Nature of Innovation

Innovation has been recognized as an essential element to economic development (Schumpeter, 1982) because of the possibility to create either new product, to use new production method, to open new market or to organize industry in a new way. In any case, it is essential to economic development, as it bolsters a dynamic process of traditional technologies by new ones, called creative destruction. It is fundamental to understand that enterprises innovate to improve performance – expanding market and increasing profit – through product differentiation, increasing demand, cutting costs, and augmenting process effectiveness.

The nature of the innovation relates to the objectives of the modification and the respective process. Thus, we can identify modification in product that is recognized as a product innovation or modification in a process that is seen as process innovation. On the other hand, if a modification, be it in product or in process, is executed in small steps, it is an innovation incremental in nature (Freeman; Soete, 2008; Tigre, 2006). In this case, innovation base modification in existing knowledge, emphasizing competences and keeping product/process still competitive (Tushman, Anderson, 1986).

If the modification represents a structural rupture with established technological patterns, then we say that this is a radical innovation. In this case, resulting product or process are superior to the traditional, then it changes relationship among consumers and with suppliers as well as the relationship of the market economic elements (Leifer; O'Connor; Rice, 2002). Radical innovation rely on very distinct knowledge from the existing one, destruct competences, and make competitive the new products. Radical innovation also reverberates among traditional competitors, opening opportunities for new ones and for discontinuous innovation (Tushman, Anderson, 1986).

In terms of technological discontinuity, radical innovation generate deeper ruptures in the technology trajectory. Incremental innovation, on the contrary, maintain continuity in the changing process (Schumpeter, 1982). Practical observation indicates that long-range success enterprises use to interchange incremental with radical innovation (Benner; Tushman, 2001).

Innovation Strategy and Business Leadership

Any market insertion of new product requires a strong correlation of the product with market performance, or else, innovation would not accomplish its basic function. In doing this, innovation strategy must target increasing competitiveness through three main ways: new products; invecible products in quality and in delivering; and services cheaper, faster and of better quality (Tidd; Bessant; Pavitt, 2008). Innovation is a powerful inducer of competitiveness, however, developing innovating and technology inside the enterprise became too expensive and results do not always give the desired return. The basic reason remains the diminishing time of technology life cycle that influences the level of profitability and the time frame to return. It is advisable then that companies find ideas and innovation outside their own walls (Chesbrough, 2007). To bring external technologies inside requires, on the other hand, the development of internal capabilities to capacitate enterprises either to buy well or to develop adequately the needed technology. The research of Rothaermel and Hess (2010), among multinational of pharmaceutical industry, has detected four strategically important options: (1) hiring human capital of superior ability; (2) investing in internal Research and Development; (3) formalizing strategical alliances; and (4) acquiring external innovation. Critical aspects involved in these options refer to: technological maturity of the company, familiarity with patent (use and incorporation), deal with technology risk (mitigation and sharing), technical rivalry and organizational culture. It is combining two or more of these elements that companies look for ways to improve technical attributes and economic goals object of modification or innovation (Durham, 2006).

While thriving for developing novelties on products, process or tools, companies strengthen technological capabilities associated with their ability to innovate and improve competitiveness (Kim, 2001). The ability to innovate as a tool to compete is also emphasized by Prahalad and Hamel (1990) for whom companies must increase the portfolio of competences as a way to create competitive advantage. Still incorporated in the notion of innovation strategy for business leadership are the identification and exploration of technological trajectory of industries to drive and consolidate technological dominion of their own in order to perfect competitive strategies (Tidd; Bessant; Pavitt, 2008).

Considering competitive strategy under technological dominion context, Freeman and Soete (2008) classified business leadership of companies into six distinct strategies: (1) Offensive – thrives for leadership based on technological dominion, mainly on chosen market segments. (2) Defensive – rapidly reacts to innovation launched by rivals, but do not run the risk of being the first in innovation. (3) Imitative – product cheap imitation of product and trademarks leaders in their segment. (4) Dependent – exert a subordinate role regarding other companies technologically stronger. (5) Traditional – do not change technical base and advance in small incremental steps. And (6) Opportunist – jump on temporary favorable situations. This classification, however, is not definitive and companies may evolve to distinct categories or use combination of strategies.

More recently, Tigre (2006) reasoning inserts the technological strategy of a company in two distinct approaches of the competitive strategy. The first one uses the concept of new theories of the industrial organization and the games theory, where competitors try to influence rivals and market agent behaviors. The second one feeds on the dynamic capacities principle (Teece, 2010), that emphasizes not only the exploration of internal resources but also the generation of knowledge derived from the experience originated in the combination of new capabilities needed to align innovation with market requisites. These are complementary, rather than exclusive and self-contained concepts targeting at articulating proper business strategies to optimize economic returns from innovation.

Innovation is not only associated to cost reduction, but also to the strategic positioning of a business to explore market opportunities, to adequate technologies, to agglutinate competences and to balance competition with cooperation. This new context involves economic considerations toward technological issues aiming at value generation for business based on innovation contents.

Technology Cycle and Technological Discontinuity

To prosper in an increasingly innovative context, companies depend on better dealing with challenges coming from innovation discontinuity, breaking barriers to entrance and create differentiation (Hamel and Breen, 2000). Since no structured pattern governs competition management based on innovation standards, each company tries to find the best way to combine continuous, incremental, disruptive or radical innovation. To deal with these elements, it is necessary to understand the life cycle period of technologies, where new product or process technologies with superior performance surrogate the existing ones. It is important to notice that the life cycle phases of a technology influences directly competences, capabilities and strategic actions of a company in a technological discontinuity context.

Anderson and Tushman (1990), after studying the phenomenon, propose an evolutionary model to explain technological discontinuity. The changing cycle starts with challenging technologies gladiate to be adopted by industry. This is the era of technological fermentation. When incremental innovation on dominant technology gives low significant return and technology shows signs of saturate value. Industry start then to try alternative technology (challenging technological paradigms) to replace the dominant one. Once a new technology proves to be advantageous over the dominant, it is adopted, becoming the dominant model. Another dominance period begins, where dominant technology undergoes incremental innovation. This period opens up again a new fermentation period when incremental innovation proves not to be as effective as expected. The discontinuity of a dominant technology, however, may happen when a radical technology comes up replacing advantageously the dominant one. The process of adoption and substitution of a dominant technology by a new one characterizes the technology cycle/technological discontinuity process.

There will always be implications from technological discontinuity on industrial performance, market share and profitability. A discontinuity will happen when it improves costs, productivity or product/process quality for a company inducing to a new technological trajectory (Tushman and Anderson, 1986). In the context of technological discontinuity versus competitive performance, some enterprises are able to maintain superior performance even during the event, since dynamic capabilities are at the same time supporting capabilities that guarantee the needed time for the companies to adapt to technological changes and keep being competitive during the discontinuity times (Jenkins, 2010).

Rothaermel and Hill (2005) consider that not every technological discontinuity lead companies to decrease performance, as new technology becomes market dominant. Some enterprises can manage better certain types of technological discontinuity than others, if they are able to develop a set of abilities (Jenkins, Floyd, 2001). On one hand, they need to have an array of technical capacities of greater comprehensiveness (knowledge, development and integration of systems, etc) that reduces the impact of the new technological trajectory. On the other hand, they are able to recognize the implications of radical innovation faster than rivals and construct or reconstruct dynamic capabilities during discontinuity periods. More recently Birkinshaw and Gibson (2004) alert industry to develop organizational ambidexterity – external forces adaption and internal resources alignment – as a strategy to prompt companies to the discontinuity derangements. In the same route, Reinmoeller and Baardwijk (2005) propose constructing organizational resilience, through technological diversity, as a way for business to become less vulnerable to market technological changes. In any case, “disturbance” of technology variances – incremental, radical, and disruptive – must be dealt with through dynamic capabilities to appropriate companies to better cope with dominant technical models and architectural innovations.

METHODOLOGY

This research, of qualitative and descriptive nature. We designed this research using the method of case study, carefully considering the premises in the specialized literature (Yin, 2009). Case study as a research method is especially useful to understand individual, organizational, social and political phenomena in organizations or individualized groups and as so, it applies to studies in management. It can also be used to test and create theories by deepening analysis of specific phenomena, or expand theoretical concepts of accepted or emergent theories (Eisenhardt, 1989). Specialized literature, however, unanimously recommends adequate circumscription of the problem under study, systematic and trustful information gathering and rational analysis of data.

To guarantee rationality of analysis and trust of results, we select the social subject of this research by picking the ones directly involved in the case. We also complement data through reports and official documents of the company and individual studies from other authors. The social subjects interviewed are the company's executives, such as the Director President; the co-founder of the company and member of the Technological Development Council; the Vice-President for Technology, the Director of Technology and the Vice-President for Business Strategy.

The chosen enterprise for this research is TOTVS, a software system developer, specialized in Enterprise Resources Planning – ERP, for small and medium size enterprises. The choice for TOTVS is based on the fact that the enterprise is the six in the international ranking of ERP developers in the world, according to Gartner Institute (Totvs, 2012a). TOTVS is the leader company in market share in Latin America (34.5%) and Brazilian market (48.6%), the biggest market in South America. In 2010, TOTVS revenues comprised about US \$ 800 million, the single highest revenue in integrated solutions developers in Brazil (Totvs, 2012a).

Research Results

The rank of companies in corporate software, published by Gartner Institute in *All Software Markets, 2010*, TOTVS was classified number six in the world, as an ERP solution provider (development, commercialization, and consulting). TOTVS competed with multinational companies such as SAP, Oracle and JD Edward's (Totvs, 2012a). Ernesto Haberkorn, today a TOTVS' shareholder and member of Technology Development Council, established TOTVS in 1969 as software services provider. The company gained significant market share, however, after the market launching of an enterprise management system to automate administrative tasks, but it was only in the beginning of the 1980's that the company concentrate in the micro-information field.

By 1983, current CEO and President of TOTVS Administrative Council Laercio Cosentino, proposed a detail business plan to drive the company to focus on software systems for microcomputers market. Once accepted the plan, Cosentino assumed 50% of the company's shares to start a newly reshaped company, called Microsiga Software S/A. Microsiga concentrated on software for small and medium sizes companies. To leverage the company's growth, Microsiga received capital injections from private funds sources during the 1990's, but went public by 2006 (Namour, 2009). After the acquisition of DataSul, its major rival, Microsiga formulated its business model, reshaped and expanded the franchising system and became TOTVS (all or everything in Latin). The new corporate trademark refers to the repositioning of TOTVS, now offering solution to any industrial and economic sector (health, agroindustry, law, financial services, distribution, logistics, retail, education, construction/projects, manufacturing, media and services). It also relates to the idea of integrating all acquired trademarks by TOTVS. Today TOTVS operates in 23 countries in five continents, employs above 9 thousand people (2.7K in R&D activities), holds a portfolio of 26K clients and more than 220 distribution channels (own offices and franchises) (Totvs, 2012a, 2012c, 2012d).

Cosentino business strategy for Latin America focuses on market share expansion while keeping leadership, according to the V-P for Business strategy. There is a huge effort to increase market participation among big corporate users, based on improvements of complementary ERP modules and incremental innovation of current products. It is part of this strategy the acquisition of enterprises and growth in the segment of small and medium size companies (Totvs, 2012d), supported by a macro model of franchising, similar to the fast-food industry, to cover all economically effective regions in Brazilian market (Nakagawa, 2008). According to Cosentino, now, TOTVS growth passed the phases of "foundation", "positioning", "definition of DNA and mission", and "market consolidation". The company is now entering a phase to becoming a "global icon." (Santana and Julibone, 2006).

Since the restructuring of Microsiga, that is, the inception of TOTVS, the company determined an aggressive acquisition or association strategy to rivals, such as DataSul, RM Sistemas, Logocenter, and TotalBanco, to accelerate internal capabilities on data bank, management for consulting services, data hosting, portals, internet provider services (cloud computing), outsourcing. The association or acquisition would be either as a shareholder, as associate or as a buyer of the companies (Totvs, 2012d). The priority of the association (acquisition down to shareholding) would be determined by the degree of threaten to TOTVS' ERP.

For instance, the company acquired Logocenter in 2004, because of the Logocenter's Business Intelligence (Logix-BI) module, superior to the one of the TOTVS' ERP. Logix-BI was then incorporated in the T's ERP. TOTVS also acquired RM Sistemas in 2005, because of RM's system (a CRM) strong position among small, medium and large companies. DataSul was incorporated to TOTVS by 2008 because of its products (ERP, BI, CRM and B2B) would allow TOTVS to enter the market of large companies.

By integrating the answers of all interviewed people and specialized literature we identify eight premises orienting the acquisition process at TOTVS: (1) mapping of market opportunities by expert people; (2) compatibilization of TOTVS technological food print; (3) negotiation of financial values of the acquisition; (4) evaluation of the owner/entrepreneur to establish business empathy; (5) definition of the business incorporation process; (6) evaluation of products and distribution channels; (7) agreement on terms of the acquisition contract; (8) execution and market communication ((Namour, 2009).

Beside the acquisition of entire companies, TOTVS use to buy independent technology to endorse, improve or expand solutions embedded in its ERP. The company incorporates directly independently bought technologies in the middleware, a hard core of the ERP system that integrates the application of each module. This technology acquisition process is carried out within the concept of the open innovation premises, as noticed by Rodrigues and Lima (2009), through TOTVS' internal innovation program (INOVE), targeting at exploiting internal expertise and exploring external technologies/innovation available in the market. Today, TOTVS speeds technological dominion by internal development and supplementary by acquiring independent technology and systems.

TOTVS dominant technology is a compiler called Protheus. It was developed by the company "*to verticalize the development of the company's portfolio of products*" as observed Mr. Haberkorn, the company's co-founder. This compiler uses programming languages in xBase standard (Clipper, Visual Object and FiveWin). With the advent of a technological discontinuity (the discontinuation of Clipper, by Computer Associates) the company became before a technological dead end. Given the criticality of this language for TOTVS' compiler continuation. So the company decided to invest in the development of its own Advanced Programming Language – AdvPL. The Director of Technology does not see AdvPL as a risky choice, since Clipper is "the bed language, but real solutions reside in advancing the language codification and the addition of external libraries". In short, this language uses the core code of Clipper programming language and incorporates the standard xBase (Namour, 2009), but became improved by the addition of external libraries and graphic interfaces, which allows users to easily customize as they wish.

The V-P for Technology bets on three main elements that guarantee TOTVS dominant technology in place. One is the AdvPL language that is very flexible to create solutions and does not require hardware sophistication. The second element is the compiler (Protheus) that integrates applications from distinct sources into one single middleware (TotvsTech). The use of TotvsTech is technically very productive, since it allows developers and users to operate with diverse and unified platforms. Third, TOTVS adopted the concept of service-oriented architecture (SOA) to manage the development of its systems and applications. SOA architecture brings two competitive advantages to TOTVS: it drives and controls the internal proliferation of application standards, because the company needs internal standards to maintain compatibility among applications. In addition, it decreases application/systems development costs, because the company can better manage internal resources and outsource what is advantageous to be externally developed.

Discussion and Final Remarks

Technological discontinuity of Clipper language in the beginning of the 1990's required a strategic business adaptation of TOTVS and a clear definition of a new technological trajectory. The innovation and the competitive strategies determined by the company ended up making TOTVS less vulnerable to the risks of technological discontinuity. On the business side, the company decided to speed the incorporation of needed technologies through acquisition of autonomous applications and systems or acquisition of entire companies and their client portfolio, and establishing strategic alliances with global developers to earn systems sophistication and international experience. On the technology side, TOTVS created the elements (AdvPL – Compiler – Middleware or Integrator) for its dominant technology, the set these three elements.

Operationally, the company focused on market niches initially disregarded by large multinational ERP providers. TOTVS offered a suite of solutions at a low implementation cost and integrated by an IT architecture that requires low level of processing requisites. This strategy, accepted by small users with no barriers, became even better accepted by medium size users because of the modularization of the system (ERP). These strategies and the modularization of the system, by Totvstech, transformed TOTVS in the main incumbent in these segments.

In the effort to protect its dominant technology, TOTVS established three main route, followed simultaneously. One refers to the verticalization of technical dominion, that is, the decision to create autonomy by developing a proprietor technology - programming language; compiler (Protheus) and integrator (TotvsTech). The avoidance of a technological dead end in the programming language allowed for maintenance of the compiler and growth in solutions, of the integrator.

A second route refers to the choice of the level of complexity of the embedded technology in the proprietary system, the dominant technology. Clipper is considered a less complex, however, higher flexible programming language. Using its standard code to subsidize AdvPL favored the socialization of the language, increasing absorptive capacities (Schmidt, 2005) of the company, appropriating internal technical structure for innovative solutions. Externally, the resulting ERP will run on hardware with less technical features, requiring less investment in IT than IT systems from rivals (SAP, JD Edward, similar).

A third route focuses on the way the company adopted to speed up the updating of its technological base. External acquisition, either of independent or incorporated technologies in the portfolio of acquired firms, would supplied the internal demand, would support alternative innovative solution and would help expand the technological dominion of the company. External acquisition has been an important strategy to slow down eventual pressure from challenging technologies.

Thinking on Freeman (2008) innovation strategies, TOTVS demonstrated to work under the criteria of an offensive technology strategy, when the company decided to develop its own proprietary technology and to use acquisition strategy to speed demand and updating. This decision made, on the one side, the company's ERP accessible to small and medium industrial segments, leveraging TOTVS to market leadership in this segment. And on the other, strengthen the protective strategy of dominant technology by developing internal resilience capacity (Reinmoeller and Baardwijk, 2005).

Considering Rothaermel and Hess (2010) concepts on innovation, the combination of acquisition strategies and international alliances guarantee the consolidation of TOTVS technological dominion base necessary to maintain its dominant technology. Internally, there is a great deal of contribution coming from the flexibility of TOTVS' ERP platforms (TotvsTech), improved by the expertise of fusions and international alliances. IT solutions from TOTVS multinational concurrent are difficult to be implemented by small and medium size companies, due to hardware requisites, training, and customization and implementation costs. Finally, the Service Oriented Architecture, added management flexibility to the company's IT sector.

The risk of the less complex technology as the core of the dominant technology at TOTVS may lead to the system a certain level of vulnerability to technological discontinuity. Considering that large multinational companies are prone to introduce innovation, some of radical nature, with superior performance, then we may have a challenging situation to the dominion of established technologies threatening TOTVS market leadership. To this point, however, TOTVS protective strategy has work well.

Finally, we recommend new studies, for instance, aiming at understanding the influence of growth strategies on technology management and strategies of the acquiring company, looking at the effect on its technological footprint. Or to study the effect of absorptive and/or dynamic capacities on the process of adaptation to a new dominant technology in the context of the cycle of technology discontinuity.

REFERENCES

- Anderson, P., & Tushman, M. (1990). Technological Discontinuities and Dominant Designs: A Cyclical Model of Technological Change. *Administrative Science Quarterly*, 35 (4), 604-633.
- Basalla, G. (1988) *The Evolution of Technology*. Cambridge: Cambridge University Press.
- Benner, M. J., & Tushman, M. L. (2001). Exploitation, Exploration, And Process Management: The Productivity Dilemma Revisited. *Academy of Management Review*, Vol. 28, No. 2, 238-256.
- Birkinshaw, J., Gibson, C. (2004). Building Ambidexterity into an Organization. *MIT Sloan Management Review*. v. 45, n.4, p.47-55.
- Chesbrough, H. (2003). *Open Innovation: The New Imperative for Creating and Profiting from Technology*. Boston, Harvard Business School Press.
- _____. (2007). Why Companies Should Have Open Business Model. *MIT Sloan Management Review*. v. 48, n.2, p.22-28.
- Dunham, F.B., Bomtempo, J.V., & Almeida, E.L.F. (2006). *Trajétórias Tecnológicas em Combustíveis Sintéticos: Análise dos Mecanismos de Seleção e Indução*. Available at: http://www.finep.gov.br/revista_brasileira_inovacao/nona_edicao/trajetorias_tecnologia.pdf. Access: 20/03/2013.
- Eisenhardt, K. M. (1989). Building Theories from Case Study Research. *Academy of Management Review*. 14 (4), 522-550.
- Freeman, C., Soete, C. (2008). As inovações e as estratégias das firmas. In: C. Freeman & C. Soete (org). *A Economia da Inovação Industrial*. Campinas, Editora Unicamp.
- Hamel, G., & Breen, B.G. (2007). *O futuro da administração*. São Paulo. Campus.
- Jenkins, M. (2010). Technological Discontinuities and Competitive Advantage: A Historical Perspective on Formula 1 Motor Racing 1950–2006. *Journal of Management Studies*, 47:5 July. doi: 10.1111/j.1467-6486.2010.00928.x
- Jenkins, M., & Floyd, S. W. (2001). ‘Trajectories in the evolution of technology: a multi-level study of competition in Formula One racing’. *Organization Studies*, v. 22, 945–69.
- Kim, L. (2001). *La dinámica del aprendizaje tecnológico en la industrialización*. Available at: <http://www.oei.es/salactsi/limsu.pdf>. Access: 15/03/2013.
- Namour, R. (2009). O Mestre das Fusões. *Revista Isto é - Dinheiro*, 621.
- Prahalad, C. K., & Hamel, G. (1990). The core competence of the corporation. *Harvard Business Review*, v. 90, n. 3, p.79-91, May/June.
- Rodrigues, L. C., Lima, E. (2009). Crescimento por Inovação Aberta - Uma Ampliação do Conceito: O Caso da Totvs S/A. *Anais, Seminário Latino-Iberoamericano de Gestão Tecnológica – Altec*. Cartagena de Índias.
- Reinmoeller, P., Baardwijk, N. (2005). The Link between Diversity and Resilience. *MIT Sloan Management Review*. v. 46, n.4, p.61-66.
- Rothaermel, F. T., Hess, A. M. (2010). Innovation Strategies Combined. *MIT Sloan Management Review*, Spring, 12-15.
- Rothaermel, F. T., & Hill, A. M. (2005). Technological Discontinuities and Complementary Assets: A Longitudinal Study of Industry and Firm Performance. *Organization Science*, v.16, n.1, 52-70.

Schmidt, T. (2005). Absorptive Capacity - One Size Fits All? A Firm-level Analysis of Absorptive Capacity for Different Kinds of Knowledge. Discussion Papers 05-72, Center for European Economic Research. Available at: <<http://ideas.repec.org/p/zbw/zewdip/4555.html>> Access: 20 March 2013.

Schumpeter, J. A. (1982). *A Teoria do Desenvolvimento Econômico*. São Paulo: Abril Cultural (Coleção Os Economistas).

Tidd, J., Bessant, J., Pavitt, K. (2008). *Gestão da Inovação*. 3 ed. Porto Alegre: Artmed.

Tigre, P. B. (2006). *Gestão da Inovação*. Rio de Janeiro: Campus.

Totvs. (2012a). Relações Com Investidores. Available at: <http://www.totvs.com/ri>. Access: 15/10/2012.

Totvs. (2012b). Divulgação dos Resultados
http://www.mzweb.com.br/totvs/web/arquivos/tots3_apresentacao_4t11_port.Pdf>. Access: 17/10/2012.

Totvs. (2012c). Histórico. Available at:
http://www.mzweb.com.br/totvs/web/conteudo_pt.asp?idioma=0&conta=28&tipo=17237&img=17231. Access: 17/10/2012.

Totvs. (2012d). Estratégia e Vantagens Competitivas Available at:
http://www.mzweb.com.br/totvs/web/conteudo_pt.asp?idioma=0&conta=28&tipo=17237&img=17231. Access: 17/10/2012.

Tushman, M., Anderson, P. (1986). Technological Discontinuities and Organizational Environments. *Administrative Science Quarterly*, 31, (3), 439-465.

Yin, R.K. (2009). *Case Study Research*. Thousand Oaks: Sage Publications.

INNOVATION POTENTIAL OF REGION.

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ABSTRACT

There are lots of approaches which are used when giving a definition to the notion of competitiveness. In order to identify ways for better competitiveness of a region, it is important to assess, first of all, its innovation potential as a basis for competitiveness factors' development.

The shift towards provision of competitiveness on the basis of innovation development factors will result in increased competitiveness of Russian goods and attraction of better and cheaper resources. In order to achieve this, it is necessary to develop competitive advantages of regions which base on innovations. It becomes especially important for the regions which have no other competitive advantages, such as natural resources or availability of transport infrastructure. In order to increase innovation potential of a region there should be control mechanisms, which will boost evolution of effective regional innovation systems.

INTRODUCTION

Today the economy of Russia is mixed and unequally developed in different regions, which implies that some specific features should be taken into account when tackling this problem.

There are lots of approaches which are used when giving a definition to the notion of competitiveness. On the whole, one can speak about competitiveness of a certain object (product, service) or economic system (company, region, national economy) as of its capability to compete with other similar objects or systems in the market.

As competitiveness characterizes the ability of a region to compete effectively with other regions for resources, investments and target markets, the general approach to assess competitiveness is based on the system of individual potentials. Thus, according to the technique of the rating agency Expert – RA, the investment rating of a region (which, as we believe, is an important competitiveness characteristic – the higher the investment rating is the easier it is for a region to attract resources for development) comprises investment potential and investment risk related. The potential reflects the share which the region has in the all-Russian market, whereas the risk characterizes the size of problems investors may experience in a certain region. Each of these synthetic parameters, in its turn, is classified in the system of individual measurements in table 1. Every individual potential or risk has a specific group of indices.

Table 1: Components of Region's Investment Attractiveness

Parameter	Individual measurements	Effect on competitiveness
Investment potential	Labor potential	Makes positions in labor market stronger
	Financial potential	Helps to obtain competitive positions which lack
	Production potential	Improves positions in commodity market
	Consumption potential	Improves positions in domestic market
	Institutional potential	Tools which provide competitiveness can be created
	Infrastructure potential	Infrastructure which provides competitiveness can be built
	Natural resources potential	Strengthens positions in resource market
	Tourist potential	Creates specific advantages in domestic and external market
	Innovation potential	Creates stable competitive advantages
Investment	Financial risk	Financial security risk when creating competitive advantages

risk	Social risk	Risk of social unrest
	Management risk	Risk of inefficiency and management
	Economic risk	Risk of economic inefficiency
	Environmental risk	Risk of unfavorable environmental situation
	Criminal risk	Threat to creation of competitive advantages, risk of uncontrollability

As stable competitiveness may be achieved on the basis of a wide range of competitive advantages, different individual potentials are worth developing. However, innovation potential is that of priority, since that is exactly the one which becomes the platform for developing a set of competitive economic sectors. Due to dynamic growth of innovation industries it is possible to form competitive advantages of regions that do not have a significant raw material or labor potential. In such a case a region is considered to be a place where innovatively active companies are concentrated. Consequently, one has to improve interaction between companies, universities, research centers, small and big businesses in the region, which is meant to create long-term competitive advantages relying on regional intellectual resources.

The term *potential* is widely spread in many fields of economic and social life. Traditionally, potential implies a combination of ‘sources, facilities, funds, reserves which can be called into operation, used for solving some task or achieving some goal’. Speaking about innovation development of a region the term *potential* can be reasonably referred to the Latin word *potential*, i.e. ‘possible in case there are respective conditions’. However, as for the structure itself or types of potential, there is a big difference in the way they are interpreted. In particular, K.M. Misko uses a concept of ‘consolidated resource potential’, which comprises:

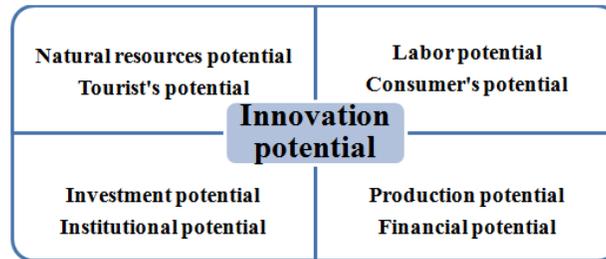
- potential of agricultural land resources;
- potential of forest resources;
- potential of animal world resources;
- potential of urban land resources;
- potential of water resources;
- potential of primary mineral resources;
- labor potential of population;
- potential of assets;
- potential of intellectual property resources.

We believe such a classification requires certain clarifying, namely: the first six components include a consolidated natural potential whereas labor potential, potential of assets and intellectual potential comprise elements of a company’s market potential.

B.K. Plotkin says that ‘any intellectual human activity ... (which, correspondingly, includes production activity) ... is based on mental and material potential.’ Here by mental potential we mean ‘accumulated scientific and technical knowledge, skills and abilities to generate ideas, creativity’. Material potential exists in the form of all types of material resources. However, it is worth mentioning that such division corresponds to the macro and microeconomic approach rather than to the general economic one. E.M. Bukhvald uses the term ‘economic potential’. It implies both natural resources and fixed assets. This concept excludes such important components as labor, innovative and intellectual potential of a company. Likewise, we cannot agree with equivalency of the notions ‘production potential’ and ‘fixed assets’. B.A. Riseberg interprets economic potential as a general ability of a country’s economy, its sectors, companies and enterprises to perform production and economic activities, produce goods and provide services, meet public needs, ensure development of production and consumption. When looking into economic potential of a region as a whole system, some researchers highlight the following potentials as its key elements: labor, investment, natural resources, and innovation potential. In our view, the innovation potential is the backbone element of the potential for competitiveness growth. Other subsystems of economic potential can be, at the same time, innovation potential subsystems.

In order to identify ways for better competitiveness of a region, it is important to assess, first of all, its innovation potential as a basis for competitiveness factors’ development.

System of a region’s economic potential



EVALUATION OF INNOVATIVE POTENTIAL OF REGION

The problem of innovation potential assessment of Russian regions has been investigated by different researchers. Thus, G.A. Wintir has been researching the innovation potential of the regions. The authors of the project 'Strategies of innovation development 'Innovative Russia – 2020' also distinguish successful innovatively active subjects of the Russian Federation (regions), which include St. Petersburg, Novosibirskaya Oblast, Tomskaya Oblast, the Republic of Tatarstan and Mordovia.

The work of G.I. Zhits defines the innovation potential as a system of resource provision for the system to function at the level which corresponds to the world's level or higher. The system of the innovation potential nominally consists of four interconnected segments.

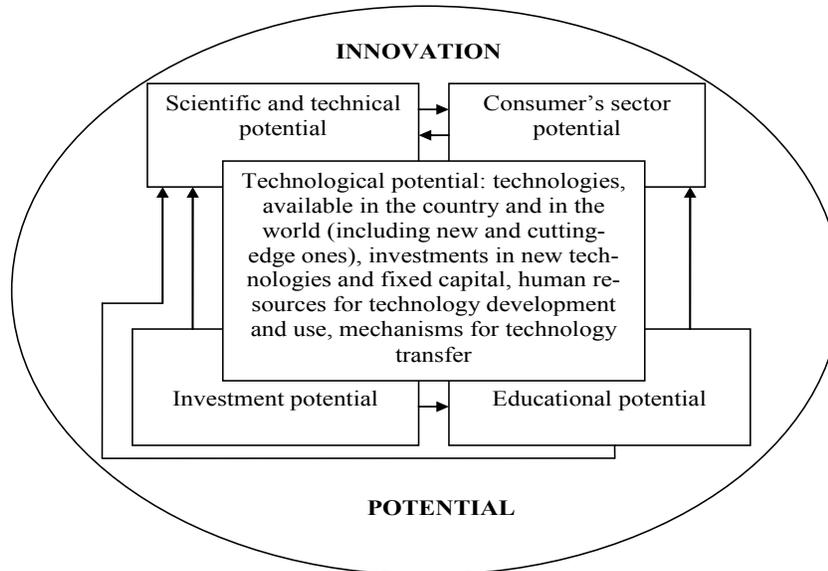
1. Technical scientific potential, which ensures availability of innovations meant for production use in the macro-system.
2. Educational potential, which characterizes abilities of the micro-system to create and use technical scientific innovations.
3. Investment potential, which characterizes abilities of the macro-system to implement production use of technical scientific innovations and to diffuse them in the whole macro-system.
4. Potential of the consumer's sector – all individuals and legal entities, which, on one hand, are consumers of the innovations that are offered for use and, on the other hand, initiate subsequent activity of other segments due to creation of new needs.

Technological potential lies at the centre of innovation potential and embraces all the four mentioned elements in the sphere which is related to creation, mastering and distribution of cutting-edge technologies. It comprises available domestic and global technologies, including new and cutting-edge ones. Thus, technological potential is based on the aforementioned potentially available knowledge stock (PAKS).

Place of technological potential in innovation potential

Main elements of innovation potential include:

1. *Human resources' element*: number and qualification of technologists, their educational level, creative abilities, experience, background, knowledge of progressive technologies, ambition for continuous education, readiness for development and implementation of the new made and open-mindedness towards innovations.
2. *Institutional element*: the number of organizations which supply specialists into key technologies, their status, departmental identity, dimensional structure and so on. The same information about organizations which are key consumers of technologies.
3. *Investment and financial element*: the amount of investment into development of new technologies within a certain period of time; volume and structure of financial resources for investment in technologies; available equipment, material, devices, office appliances and computers, etc.
4. *Organization and management element*: control mechanisms for development and transfer of technologies, protection of intellectual properties.
5. *Consolidate indices*: involvement of a region in technological exchange, share of innovation products in the gross regional product, etc.



It is worth considering that various regions have specifics, which cannot but influence the level of innovation potential and its structure. The literature which is dedicated to innovation activities of regions covers different approaches towards the ways how regional specifics has to be taken into account when assessing innovation potential of a region.

1. As a rule, innovatively active companies and research institutes are concentrated in large conurbations.
2. Industrial and industrial innovative clusters help knowledge and new technologies spread and at the same time they can be located quite far away from big regional centers.
3. Commonly, regions located on the outskirts of the country are notable for lower innovation activity comparing to the ones which are close to the largest scientific and financial centers.

CONCEPT OF REGIONAL INNOVATION SYSTEMS

The concept of regional innovation systems is used to control innovation potential of regions with due consideration of their differences.

The idea of a regional innovation system and regional network economy, which appeared at the end of the 20th century, was based on the changes that were happening in the economic policy: adequate measures were needed to increase a region's competitiveness. Many countries and unions of states (EU) began to introduce measures to stimulate 'regional growing points' or regional clusters. In their research, the authors have relied on the following characteristics of modern business environment and achievements of economic conception.

1. Research of industrial regions with fast development due to innovations. The first of the region under research is the so called "Third Italy", region Emilia-Romagna in the north of Italy where a large number of small innovation companies are concentrated. Fast economic growth of this region has illustrated one of the dominating features of modern economy – shift from mass production to a flexible, customer-oriented, specialized production, which requires a large cooperation of companies and which is possible in the conditions of network economy. The second region – Silicon Valley in the USA – is an example of hi-tech industrial region, based on the integration of universities, venture capital and advances of modern information technology.

The theoretic basis for further research is the work of M. Porter, who suggested an idea about production or industrial clusters as locomotives of economic development. If such a cluster is located in a region, it makes the region somehow different from other regions of the country due to the specifics of its economy. Such a region has a higher competitiveness.

One more basis for terminology development of regional innovation systems has become a more evolved conception of a national innovation system, which can be, to an extent, applied to a regional level. According to the authors, a regional innovation system has the same components as a national one. However, organizations within the framework of a regional innovation system function within the limits of a certain region. Consequently, the development goals for such a system have to be the goals which are primarily important for this region.

A theoretical justification of regional innovation systems can be found: from the perspective of ‘evolution theory’ and ‘new theory of growth’, which see innovations as a socially important process influenced by many factors, both internal and external for the companies which implement these innovations. The models of new theory of growth accounts for the fact that profitability of investments in human capital assets, new technologies and knowledge grows in course of time as a result of the so-called ‘innovation added effect’. This effect, which foreign authors refer to as ‘spillover’, shows that firms cannot use, in full, the advantages of their investments in R&D on their own, without their partners being involved and relevant infrastructure being developed. Therefore, investments in new knowledge, technologies and human capital assets bring economic advantages to the society as a whole. Thus, effectiveness of innovation activities can increase in case there is systematic interaction, cooperation of different agents, which allows speaking about innovation systems from the perspective of regional economy, which emphasizes the importance of a region’s competitive advantages as a location where innovatively active companies are concentrated. Consequently, it is essential to reinforce interaction between companies, universities, and research centers, small and big companies in a region in order to create long-term competitive advantages with the help of regional intellectual resources. Recently, foreign scientists carried out comparative research in order to study and identify specific features of regional innovation systems. The specification of the most known studies is given in Table 2.

Table 2: Specification of research of regional innovation systems

Research	Target of research	Goal of research	Main results
Regional innovation systems: designing for the future (REGIS)	11 European regions (Baden-Württemberg, Wallonia, Brabant, Tampere, Lower Silesia, Basque Country, Friuli, Stiria, Wales)	To study theoretical basis of the organization and measurement direction of effective performance of RIS	Innovation potential of regions is described in detail, strong and weak regions are identified
European research of regional innovation systems (ERIS)	11 European regions (Vienna, Stockholm, Barcelona, Alsace, Baden, Lower Saxony, Girona, South Holland, Saxony, Slovenia, South Wales)	To identify quality and quantity characteristics of a region’s innovation potential, establish interconnection between participants of innovation processes	Innovation activity is a result of network interaction. Innovation policy should be directed on increased effectiveness of such interaction
Regional evaluation of innovations and policy with regard to small and medium business (SMEPOL)	11 European regions (Upper Austria, Wallonia, Jutland, Lombardy and Apulia, North and South-West Norway, Valencia, London boroughs and Hertfordshire)	To carry out comparative research of regional innovation policy tools with regard to small and medium enterprises in Europe	Innovation policy should increase effectiveness of interaction between small and medium enterprises and should stimulate team teaching
Scandinavian small and medium enterprises and regional innovation systems	13 regions in Scandinavia and Northern Europe (Oslo, Stockholm, Helsinki, Malino, Aalborg, Linköping, Jyväskylä, etc.)	To research similarities and differences between regional clusters of small and medium enterprises in Northern Europe and Scandinavia	It has been found out that the most effective systems are the ones where knowledge is transferred through informal relationship

Innovations of regional clusters in Canada	9 regional clusters	To study the phenomenon of companies involved in different industries which are concentrated in regions	Two types of clusters have been revealed: in the regions with strong innovation potential and in the regions that need to obtain and distribute new knowledge (often through its transfer from other regions)
Research of regional innovation clusters	10 European regional clusters	The problem of cluster approach suitability in innovation policy	Regional clusters in every country (region) have specific features, they can distribute the results of innovation activities outside the boundaries of countries and regions and they are important for choosing innovation policy

The main goal of RIS is to create conditions for permanent emergence and successful development of new innovation projects, which are designed to implement competitive advantages of a region. The structure of a regional innovation system is schematically shown in Figure.

CONCLUSION

The Innovation strategy of Russia 2020 suggests a number of tools which encourage innovation development of some regions and emergence of innovation clusters. The regions are to be supported on the basis of a selection, which happens twice a year with the help of comprehensive evaluation of innovation potential in the regions and effectiveness of innovation policy which is implemented in the regions.

Thus, on the basis of the research which has been carried out, one can conclude that competitiveness of Russian economy, which is a priority task in the conditions of it joining the World Trade Organization, can be provided only with due consideration of regional specifics. Russia is a country with federal structure and its 83 regions have quite different competitive advantages.

The shift towards provision of competitiveness on the basis of innovation development factors will result in increased competitiveness of Russian goods and attraction of better and cheaper resources. In order to achieve this, it is necessary to develop competitive advantages of regions which base on innovations. It becomes especially important for the regions which have no other competitive advantages, such as natural resources or availability of transport infrastructure.

In order to increase innovation potential of a region there should be control mechanisms, which will boost evolution of effective regional innovation systems. Our next article will be dedicated to methodological approach towards the way such mechanisms can be designed.

REFERENCES

Asheim B., Gertler M. Understanding regional innovation systems. In: Fagerberg J., Mowery D., Nelson R., editors. Handbook of innovation. – Oxford: Oxford University Press, 2004.

Botazzi L., Peri G. Innovation and spillovers in regions: Evidence from European patent data //European economic review. – 2003. – No. 47. – p. 687 – 710.

Buchwald E. The social orientation of economic growth. M.: 1990

Dosi G. The nature of innovation process. In: Dosi G. et al, editor. Technical change and economic theory. – London.: R\Pinter, 1988.

Edd S. Noell , Stephen L. S. Smith , Bruce G. Webb, Economic Growth: Unleashing the Potential of Human Flourishing/ Apr 19, 2013

Feldman M., Audretsch D. Innovation in cities: science-based diversity, specialization and localized competition //European economic review. – 1999. – No. 43. – p. 409 – 429.

Foray, D. CRIS, a cost of investment? Models of innovation in the information age. CRIS 98 Conference, Luxembourg, 1999.

Krivoruchko O., Zaitsev A., Lobanov S. Becoming entrepreneurial economy in Russia. - Moscow: OAO "Publisher" Economy ", 2000.

Misko K. The resource potential of the region. M.: 1991

Plotkin B. Material management. L.: 1991

Porter M., Competitive Advantage: How to achieve high results and sustained / trans. from English. E. Kalinina. - M.: "Alpina Publisher", 2008

Porter M. International competition. - M., 1995

Raizberg B. Business Basics. - M.: 1996

Schienstock G. Towards a new technology and innovation policy. / Innovation systems and competitiveness. - Helsinki, 1996, p.96-90

Untura G. A combination strategy of innovative development of Russia and the development strategy of regional actors.

Zhits G. Capacity for innovation and economic growth. - Saratov: Sarat. State. tech. University Press, 2000. - 164 p.

Rating of investment attractiveness of regions // Expert. 2012. Number 50. - With. 133-155.

Experience in the formation of zones of innovation growth: achievements and mistakes. - M.: Expert - RA, 2011.

Internet/http://www.economy.gov.ru/minec/activity/sections/innovations/doc20101231_016

MANAGEMENT ACCOUNTING IN PORTUGUESE HOTEL ENTERPRISES – UPDATE RESEARCH

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ABSTRACT

Management accounting (MA) techniques have evolved in the recent years in the various companies. We have studied the MA techniques that are currently being used by different types of hotels. The sample includes 61 hotels, which were analyzed between 2010 and 2012. MA is a tool incorporated in the daily management practices of Portuguese hotels. However, we verified that the hotels have different behaviors in this area, which entailed a comprehensive study on the causes of this diversity. We applied the contingency theory to explain our findings, because this theory is based on the premise that the MA techniques are not used equally by all organizations.

INTRODUCTION

MA supports hotels to improve their performance, thus becoming relevant to study MA adopted by them, particularly which instruments and techniques. It is important the use of MA information to allow the optimization of the decision making processes by hotel managers, due to the fact of them facing a big competition (Downie, 1997). Some authors suggest that MA techniques are different among companies from different industries (Downie, 1997; Williams & Seaman, 2001; Rowe et al. 2008), presenting some arguments that cause this diversity: product life-cycle, structure of costs, technology and production, intensity of competition, uncertainty and price flexibility, competitive strategies and organizational designs.

This study consists on update of our another paper (Gomes et al, 2011) with the objective of characterizing MA in the Portuguese hotel enterprises, identifying the techniques adopted, the deepness of their use, the degree of satisfaction of management with these techniques and their adequacy for the decision-making process, understand the extent to which the industry adopts and use the Uniform System of Accounts for the Lodging Industry (USALI). We have also the expectation of identify the factors that influence the behavior of the hotels in their practices of MA. We have kept the contingency theory to explain the behavior of hotels managers in this subject, because we believe that this theory, which has been applied successfully in several accounting studies, indicates the right way to achieve our goals. The present research project as selected as object of the study, the Portuguese hotels. The sample includes 61 hotels, which were analyzed in the years 2010, 2011 and 2012.

LITERATURE

According to Harris & Brown (1998), the hotels offer products with significantly different characteristics, if we compare with others kinds of business activities. However, the lodging industry must observe the MA techniques in other industries, and then should adapt to the specific needs of hospitality products. This economic activity is characterized by having a great volatility in demand and fixed costs structure, perishable goods, high competition and a great diversity of services due to the heterogeneity of clients (Downie, 1997; Mia & Patiar, 2001). As a consequence of several specificities of the hotels, the information required by managers to make decisions is different from other industries (Mia & Patiar, 2001). The MA techniques have an important role in the decision making process (Oliveira et al., 2008; Zounta & Bekiaris, 2009). Downie (1997) refers several decisions related with accounting information, for example, the compilation of marketing plan needs a financial budget. Hotels

have two sources of information: market research and accounting information. The ideal is that this information could be aligned and coordinated thus supporting the managers (Downie, 1997). The organizations make decisions based on information provided. MA can satisfy this need.

There is a growing desire to understand the practice of MA in hotels (Harris & Brown, 1998; Pavlatos & Paggios, 2009). It has been found a difference between theory and practice of MA. The contemporary techniques are very developed in theoretical terms but contrasting they have a relatively reduced adoption within companies (Jones, 2008). According to Fowler (2010), it doesn't mean that the contemporary techniques are irrelevant, because in several cases they are not adopted due their high costs of implementation. The MA techniques, according Ferreira (2002) may be divided into traditional and contemporary (Table 1).

Table 1: Traditional versus contemporary MA techniques

Traditional techniques		Contemporary techniques	
Budgeting;	Return on investment;	Activity-based budget;	Customer profitability analysis;
Budget deviation analysis;	Sales break-even;	Activity-based costing;	Economic Value Added;
Product costing;	Strategic Planning;	Balanced Scorecard;	Product life cycle costing;
Product profitability;	Tableau de bord.	Benchmarking;	Target costing.

Source: adapted from Ferreira (2002).

In Portugal, Gomes (2007) analyzed the MA techniques used by industries in different sectors, where the lodging industry was also represented. The mostly used traditional MA techniques were Budgeting, Tableau de Bord and Return on investment. The contemporary techniques are less used, though having some relevance the Balanced Scorecard, Activity-based budgeting, Activity-based costing, Target costing and Benchmarking. Pavlatos & Paggios (2008) made a research in Greece, concerning the accounting techniques adopted by hotel units. They concluded that traditional techniques are widely used when compared to the contemporary techniques less widespread. Gomes et al. (2011) reached the same conclusion regarding the Portuguese hotels.

Budgeting and Budget deviation analysis are the commonly wide technique used by hotels (Phillips, 1996; Jones, 2008; Pavalatos & Paggios, 2008; Uyar & Bilgins, 2011; Urquidi, 2013). Cruz (2007) concludes that budgets are a valid tool to the budgeting control process within a hotel, thus remarks that budgets used in hotels have some specific aspects when compared to the budgets elaborated to other industries. The budgets should not be rigid but flexible. A budget committee and a budget manual are common for Turkish hotels. These hotels use Budget deviation analysis for evaluating performance and providing information. The main objectives are to find out the problems and a timely cost control (Uyar & Bilgins, 2011). Urquidi (2013) say that some hotels in Spain use this technique. Product costing is very important in a managerial accounting information system of a hotel (Zounta e Bekiaris, 2009). The main goal of costing is the accurate recording and allocation of costs to products, services and customers. The Greek luxury hotels use the costing product, but they only allocate costs to profit and cost centers. Urquidi (2013) say that some hotels in Spain use this technique. Strategic Planning is widely mentioned in the field of hotel management (Phillips, 1996). He remarks that the Strategic Planning existent in hotels is quite incomplete since it is commonly an expansion of the financial budget with less emphasis on strategic issues. According to Cruz (2007), planning is an essential tool for their management and budgets are a part of the process. Activity-based budget have a good influence in the management of hotels like activity-based costing (Cruz, 2007). It is more relevant the use of Activity-based costing than the traditional cost center approach, if the hotel is using the customer profitability analysis (Downie, 1997). Vaugh et al. (2010) refer that activity-based costing was implemented with success in a kitchen in a Las Vegas casino, which allowed understand a hotel's cost structure. Balanced Scorecard has several of measures (financial and non-financial). The hotel modern performance system should be multidimensional (Sainaghi et al., 2013). Customer profitability analysis has a positive influence in the management of hotels (Cruz, 2007). It should be more developed (Downie, 1997). By using this technique, hotels can determine the profit contribution of clients. The last three MA techniques are used by some hotels in Spain (Urquidi, 2013). Benchmarking is a common accounting technique due to the internationalization of hotel chains operations, allowing the comparison among different hotels business units (Cruz, 2007). Lee and Kim (2009) analyzed if the Economic Value Added technique influenced the market profitability for the hotel industry, but found out that this technique was not a good way to measure this.

As a conceptual framework USALI is generalized in the world, particularly among multinational hotel chains. However, Faria (2007) presents that less than a half of hotels use the USALI. Pavalatos & Paggios (2007) found few national hotels utilizing de USALI in Greece. Gomes et al. (2011) concluded that there are evidences of a progressive knowledge and use of this framework by Portuguese hotels to support the information processing.

In the literature there may be found several studies that refer the determinants that make one company adopt for some MA techniques, supported by the theory of contingency. The contingency theory is based on the premise that the MA techniques are not used equally by all organizations (Haldma & Laats, 2002; Urquidi, 2013). The contingency theory explains the relationship between the environment and the techniques used for achieving the objectives of a hotel (Urquidi, 2013). These techniques depend upon the specific characteristics of an organization, like as organizational context and structure. The contingency theory helps to explain the impact of factors in MA. Zounta & Bekiaris (2009) argued that hotel managers should monitor the external environment, before implementing an information system. Several authors use this theory when examined divers factors (Haldma & Laats, 2002; Cadez & Guilding, 2008; Urquidi, 2013). According to Hayes (1977), there are three subgroups factors that influence the organization management, such as internal factors, interdependency factors and environment factors. Haldma & Laats (2002) subdivided into two general groups: external and internal factors. The internal factors are organizational aspects, technology and strategy. Uyar & Bilgin (2011) refer that the differences in MA were attributable to hotels sizes, complexity of operations, uncertainties, coordination and communication among departments.

The fact of company being in a highly competitive market (Tayles & Walley, 1997; Urquidi 2013), organizational variables such as communication, coordination, decentralization and formalization (Luft & Shields, 2003) and business strategy and market orientation (Cadez & Guilding, 2008; Urquidi, 2013) influence MA techniques adopted by companies worldwide. The environmental uncertainties have been associate with the need of a wide data (financial or not). So, Oliveira et al. (2008) and Urquidi (2013) mention that competition, plays an important role in influencing the introduction of new accounting techniques in the industry. Sharma (2002) argued that a turbulent and a competitive environment imply a greater use of MA techniques. A competitive organization is more open to adopting contemporary MA techniques (Zounta & Bekiaris, 2009).

According to Adler (2011) and Urquidi (2013), the strategy, used by a hotel, influences the MA techniques. Acquaah (2013) argued that there is a link between MA and business strategies. MA should support the strategy. If a hotel adopts the strategy of leadership in costs, it will be more important the calculation of product cost and the implementation of information systems that help in the calculation and control of product cost (budgeting, budget deviation analysis and product costing). If a hotel adopts the strategy of differentiation, it will be more important the new products and markets. They want to know the client needs. So, it will be chosen the balanced scorecard and the customer profitability analysis. We can say that the techniques vary according to the goals defined for MA (Urquidi, 2013). The strategy of leadership in costs needs a diagnostic control system, whereas the strategy of differentiation needs an interactive control system, because encourages innovativeness (Acquaah, 2013). The firm size (measured through sales volume or number of employees) is also a factor that influences the MA techniques in a company (Cadez & Guilding, 2008; Adler, 2011; McManus, 2013). Cadez & Guilding (2008) refer that a large company implies an increase of complexity and sophistication in MA techniques. Such as, there are a positive association between the size of a company and the use of strategic MA.

Hypotheses

According to the literature, we found that the traditional MA techniques have a higher utilization compared to contemporary MA techniques. The main objective of MA technique is the decision making process for the most companies. There are studies that refer several determinants supported by the theory of contingency that influence the MA from a hotel. In this study we opted to analyze the competitive environment, the levels of competition, the strategy and the size of the hotel. In the light of these conclusions, we developed the following hypotheses:

- H1: The use of traditional MA techniques is higher than the use of contemporary MA techniques in lodging industry.
- H2: The main objective of MA is the decision making process.

- H3: Less than fifty percent of hotels use the USALI.
- H4: The hotels that are in a competitive environment are those that use more the MA techniques.
- H5: The hotels with more levels of competition are those that use more the MA techniques.
- H6: The use of a strategy of differentiation is significantly related to the use of the following techniques: balanced scorecard and customer profitability analysis.
 - H7: The use of a strategy of leadership in costs is significantly related to the use of the following techniques: budgeting, budget deviation analysis and product costing.
 - H8: The size of the hotel significantly influences the use of MA techniques.

METHODOLOGY

According to Yin (2009), it was decided to adopt the method of questionnaire through of personal interviews. The data was processed using SPSS (Statistics Packages for Social Sciences). In order to characterize the MA at the Portuguese lodging industry we utilized the univariate analysis. The relationships defined in the hypotheses were tested by univariate and bivariate analysis, for example, we have utilized: mean, mode, Spearman's Rho and Mann-Whitney test. According to Pestana & Gageiro (2008), Spearman's Rho measures the intensity of the relation among variables, and is commonly used to describe the relation among two ordinal variables or one ordinal and other scale variable. Due to the fact that this coefficient is not sensitive to asymmetric distributions, it does not require normal populations.

FINDINGS AND DATA ANALYSIS

In this study were analyzed 61 Portuguese hotels from different categories. From these, 17 belong to national chains, 2 are subsidiaries of multinational hotel chains. The annual turnover ranges from 16,000€ to 60,000,000€. We used the Porter's competitive forces model (Porter, 1985) to analyze the five competitive forces and we added a sixth factor the influence of the Government, in order to understand the relative influence of each force in affecting the industry. We conclude that the power of buyers is the strongest force, with a mean of 5.48, followed by the rivalry among existing competitors. Concerning the intensity of competitors within the industry, this is more evident in terms of the price, being the mode 7 "very high". Of the 61 inquiries, 78.7% (48) have implemented and use MA. The 13 units that do not use this practice are small hotels and work a long time ago. The users of MA have a greater power of "rivalry among existing competitors", "threat of new entrants", "suppliers", "buyers" and "government". The intensity of the competition is greater in the users at price, labor force and promotion. The hotels that use MA are included in environment more heterogeneous relatively to customers, competitors and market.

As previously discussed, MA has a vast scope of techniques, some of which are considered to be traditional MA techniques. From these, the ones that are most used by inquiries are Budgeting, Budget deviation analysis and Strategic Planning, with 81.3%, 68.7% and 69.3% respectively. This corroborates with what is described in the literature review. Concerning the contemporary MA techniques, the results are opposed to the previous ones, because all the techniques have a score below the null value. So, we have found that the **H1** is not rejected. The traditional MA techniques are more used than contemporary techniques. Both the mean and the mode are higher in the traditional techniques. The hotels use MA mainly with the purpose of supporting their decision making process and the budgeting process too. So, we can say that the **H2** is not rejected. The process of decision making is priority.

Concerning the use of USALI, we observe that only 27.9% of the hotels use. All hotels, that use USALI, have got implemented MA. So, the **H3** is not rejected, because less than a half uses USALI. We have chosen the Mann-Whitney test, where we defined the following hypothesis: H0: The distribution of turnover is the same across the two groups of hotels (that used or not USALI); Ha: The distribution of turnover is different across the two groups of hotels (that used or not USALI). We rejected the H0 with a significance of 1%. We found that smaller hotels don't use USALI.

When analyzing Spearman's Rho of the MA techniques with variables that characterize the competitiveness within the industry (Porter's competitive forces), we found some moderate associations thus the

correlation coefficient is between -0.456 and 0.433. This correlation is positive with Suppliers, Buyers, Threat of new entrants, Power of substitutes so we can conclude that generically, the hotels that use the MA techniques are the ones who recognize to face a bigger competition. However, we have a correlation negative with the government, in other words, if the government has a bargaining power, the hotels use less the MA techniques. So, the **H4** is not rejected, because based on Porter's competitive forces model (Porter, 1985), we can say that four forces (Threat of new entrants, Power of suppliers, Power of buyers and Power of substitutes) influence positively the use of MA techniques significantly. When analyzing Spearman's Rho of the MA techniques with variables that characterize the levels of competition (Price, Labor force, Buying of goods and Promotion), we found some moderate positive associations thus the correlation coefficient is between 0.287 and 0.47. So we can conclude that generically, the hotels that use the MA techniques are the ones who face high levels of competition. So, the **H5** is not rejected, because the levels of competition influence positively and significantly the use of MA techniques. Budgeting and Budget variation analysis are the techniques which highlights a higher level of association with labor force and promotion competition.

If we compare the mean of use from balanced scorecard and customer profitability analysis in the hotels that have a strategy of differentiation and those that have a strategy of leadership, we verify a greater use of these techniques by hotels that have adopted the strategy of differentiation. However, we have a nominal variable that characterizes the strategy of the hotel and several ordinal variables that characterize the use of MA techniques. So, we have chosen the Mann-Whitney test, where we defined the following hypothesis: Ho: The distribution of use of balanced scorecard/customer profitability analysis is the same across the categories of strategy. Ha: The distribution use of balanced scorecard/customer profitability analysis is different across the categories of strategy. We rejected the H0 with a significance of 5% for the balanced scorecard. . We not rejected the H0 for the customer profitability analysis. We found that hotels with differentiation strategy use more the balanced scorecard. Thus, **H6** is not rejected for customer profitability analysis. If we compare the mean of use from budgeting, budget deviation analysis and product costing in the hotels that have a strategy of differentiation and those that have a strategy of leadership, we verify a greater use of these techniques by hotels that have adopted the strategy of differentiation. According to the budgeting/budget deviation analysis/product costing is the same across the categories of strategy. Ha: The distribution use of budgeting/budget deviation analysis/product costing is different across the categories of strategy. We only reject the H0 with a significance of 1% for the budgeting. We not rejected the H0 for the budget deviation analysis and product costing. We found that hotels with differentiation strategy use more the budgeting. Thus, **H7** is rejected. We cannot confirm what said Urquidi (2013). In Portuguese hotels with differentiation strategy there is a more common use of MA techniques, but only is significant for balanced scorecard and budgeting. The annual sales turnover could also be a variable that influences the use of MA techniques. We decided to analyze the intensity of the relation between the adoption of MA techniques and annual sales turnover through Spearman's Rho. The coefficients that have been found are all positive, and we can confirm that the hotels with higher annual sales turnover adopt a large number of MA techniques. Note that one MA techniques have significant coefficients, bigger than 0.5 (Budget deviation analysis). The **H8** is not rejected, because some MA techniques are correlated with the turnover of the hotel.

CONCLUSIONS

Management accounting (MA) techniques have evolved in the recent years in the various hotels. It is important the use of MA information to allow the optimization of the decision making processes by hotel managers, due to the fact of them facing different kinds of competition. The Portuguese hotel managers believe in that, because most of the hotels that have answered our inquiry use MA techniques, with the main purpose of providing information to decision making process. The traditional MA techniques are used frequently (*Strategic planning, Budgeting, Budget deviation analysis*), what corroborates with several authors cited in the literature. In the hotels that were subject to this study, there is a mismatch between theory and practice of MA, because some of the contemporary techniques are not known and thus not adopted by the hotels. This fact confirms the conclusions of Jones (2008). Nevertheless, the contemporary MA techniques frequently more adopted by the hotels are the ones more present in the literature (Activity based costing and Activity based budgeting). In Portugal, there is a weak use of USALI. It is not fully expanded yet across the hotels. It is more used in the large hotels.

We have tested several hypotheses, where we found some drivers of adoption of MA in lodging industry. By using *Spearman's Rho* we verified that there is a moderate association between variables that

characterize the competition within the sector and the degree of adoption MA techniques. Based on Porter's competitive forces model (Porter, 1985), we can say that four forces (Threat of new entrants, Power of suppliers, Power of buyers and Power of substitutes) influence positively the use of MA techniques significantly. When analyzing Spearman's Rho of the MA techniques with variables that characterize the levels of competition (Price, Labor force, Buying of goods and Promotion), we found some moderate positive associations. So we can conclude that generically, the hotels that use the MA techniques are the ones who face high levels of competition. Having that present, we confirm that competitiveness within the industry as a positive influence the MA techniques adopted by hotels, an idea previously transmitted by Tayles and Walley (1997).

We compared the use of balanced scorecard, customer profitability analysis, budgeting, budget deviation analysis and product costing in the hotels that have a strategy of differentiation and those that have a strategy of leadership. We verified a greater use of these techniques by hotels that have adopted the strategy of differentiation, but only are significant for balanced scorecard and budgeting. So, we cannot corroborate with Urquidi (2013). The size of the hotel (annual sales turnover) significantly influences the use of MA techniques, on this account some MA techniques are correlated with the turnover of the hotel. In conclusion, competition, strategies of business and annual sales turnover influence the adoption of MA techniques at hotels.

Managerial Implications

It is clear from this investigation that management accounting is very important to hotel managers, because it is a source of information for their decision making. However, the managers must optimize the process by choosing MA techniques according to external and internal determinants that characterize the hotel. This study could also help academic institutions to define their research orientation.

Limitations and future research

This study was done for three years, so our answers are not in the same cyclical period. We studied a few determinants, but according with the contingency theory there are more factors that can influence the management accounting techniques. So, in a future research, we will develop the study through the organizational and cultural variables.

REFERENCES

- Adler, R. (2011). Performance management and organizational strategy: How to design systems that meet the needs of confrontation strategy firms. *The British Accounting Review*, 43, 251-263.
- Aquaah, M. (2013). Management control systems, business strategy and performance: A comparative analysis of family and non-family businesses in a transition economy in sub-Saharan Africa. *Journal of Family Business Strategy*, article in press.
- Cadez, S. & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organization and Society*, 33, 836-863.
- Cruz, I. (2007). How might hospitality organizations optimize their performance measurement systems?. *International Journal of Contemporary Hospitality Management*, 19(7), 574-588.
- Downie, N. (1997). The use of accounting information in hotel marketing decisions. *International Journal of Hospitality Management*, 16(3), 305-312.
- Faria, A. (2007). A contabilidade aplicada o sector hoteleiro: uma perspectiva histórica, *Paper presented at the IV Jornada de História da Contabilidade*.
- Ferreira, A. (2002). Management accounting and control systems design and use: an exploratory study in Portugal. *PhD thesis*, The Management School, Lancaster University, Lancaster, UK.

- Fowler, M. (2010). Management accounting education: has the gap closed. *Paper presented at the 4th New Zealand Management Accounting Conference*, University of Waikato, New Zealand. November.
- Gomes, C., Arroiteia, N. & Santos, L. (2011). Management accounting in Portuguese hotel enterprises: the influence of organizational and cultural factors, *Readings Book of Thirteenth Annual International Conference GBATA, (Istanbul, Turkey)*, 331-338.
- Gomes, C. (2007). A contabilidade de gestão e o custeio baseado nas actividades nas grandes empresas portuguesas. Os determinantes do custeio baseado nas actividade. *Phd Thesis*, University of Minho, Portugal.
- Haldma, T. & Laats, K. (2002). Influencing contingencies on management accounting practices in Estonian manufacturing companies. *Working Paper series, n° 13*, University of Tartu, Estonia.
- Harris, P. & Brown, J. (1998). Research and development in hospitality accounting and financial management. *Hospitality Management*, 17, 161-181.
- Hayes, D. (1977). The contingency theory of managerial accounting. *The Accounting review*, 52(1), 22-39.
- Jones, T. (2008). Improving hotel budgetary practice – a positive theory model. *International Journal of Hospitality Management*, 27, 529-540.
- Lee, S. & Kim, W. (2009). EVA, refined EVA, MVA, or traditional performance measures for the hospitality industry. *International Journal of Hospitality Management*, 28, 439-445.
- Luft, J. & Shields, M. (2003). Mapping management accounting: graphics and guidelines for theory-consistent empirical research. *Accounting, Organizations and Society*, 28(2-3), 169-249.
- McManus, L. (2013). Customer accounting and marketing performance measures in the hotel industry: Evidence from Australia. *International Journal of Hospitality Management*, 33, 140-152.
- Mia, L. & Patiar, A. (2001). The use of management accounting systems in hotels: an exploratory study. *Hospitality Management*, 20, 111-128.
- Oliveira, E. Silva, C. Campelo, K. & Silva, A. (2008). Utilização da gestão de custos para tomada de decisão: um estudo em hotéis de Porto de Galinhas no município de Ipojuca-PE. *Paper presented at the 18° Congresso Brasileiro de Contabilidade*, Brasil. August.
- Pavlatos, O. & Paggios, I. (2009). A survey of factors influencing the cost system design in hotels. *International Journal of Hospitality Management*, 28, 263-271.
- Pavlatos, O. & Paggios, I. (2008). Traditional and recent-developed management accounting techniques in the hospitality industry: evidence from Greece, *Retrieved May 2011 from <http://paprre.ssrn.com>*.
- Pavlatos, O. & Paggios, I. (2007). Cost accounting in Greek Hotel enterprises: an empirical approach. <http://mpra.ub.uni-muenchen.de>.
- Pestana, M. & Gageiro, J. (2008). Análise de dados para ciências sociais – A complementaridade do SPSS. Lisbon, Edições Sílabo.
- Phillips, P. (1996). Strategic planning and business performance in the quoted UK hotel sector: Results of an exploratory study. *International Journal of Hospitality Management*, 15(4), 347- 362.
- Porter, M. (1985). *Competitive Advantage. Creating and Sustaining Superior Performance*, The Free Press, New York.

- Rowe, C. Birnberg, J. & Shields, M. (2008). Effects of organizational process change on responsibility accounting and managers' revelations of private knowledge. *Accounting, Organizations and Society*, 33, 164-198.
- Sainaghi, R. Phillips, P. & Corti, V. (2013). Measuring hotel performance: Using a balanced scorecard perspectives' approach. *International Journal of Hospitality Management*, 34, 150-159.
- Sharma, D. (2002). The differential effect of environmental dimensionality, size and structure on budget system characteristic in hotels. *Management Accounting Research*, 13, 101-130.
- Tayles, M. & Walley, P. (1997). Integrating manufacturing and management accounting strategy: case study insights. *International Journal Production Economics*, 53(1) 43-55.
- Urquidi, A. (2013). The choice of management accounting techniques in hotel sector: the role of contextual factors. *Journal of Management Research*, 5(2), 65-82.
- Uyar, A. & Bilgin, N. (2011) Budgeting practices in the Turkish hospitality industry: an exploratory survey in Antalya region. *International Journal of Hospitality Management*, 30, 398-408.
- Williams, J. & Seaman, A. (2001). Predicting change in management accounting systems: national culture and industry effects. *Accounting, Organizations and Society*, 26(4-5), 443-460.
- Vaugh, P. Raab, C. & Nelson, K. (2010). The application of activity-based costing to a support kitchen in a Las Vegas casino. *International Journal of Contemporary Hospitality Management*, 22 (7) 1033-1047.
- Yin, R. (2009). Case study research – design and methods. London, SAGE publications.
- Zounta, S. & Bekiaris, M. (2009) Cost-based Management and Decision Making in Greek Luxury Hotels. *Tourismos: an International Multidisciplinary Journal of Tourism*, 4(3), 2009, 205-225.

UNDERSTANDING SHARED LEADERSHIP THROUGH THE APPLICATION OF SOCIAL IDENTITY THEORY

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ABSTRACT

The aim of the paper is to explore the phenomenon of shared leadership associated with social identity theory which highlights the attributes of the leader as a group member. Focus group sessions were conducted with 145 university leaders employed at a University in Namibia. The findings showed that leaders not only lead groups of people, but also are members of these groups, and that leadership processes are therefore authorised in the context of a shared group membership. Recommendations are made.

BUSINESS CASE

The University of Namibia (UNAM) as any other organisation operates in an unstable environment. To ensure business survival, strategic leaders must continually reconcile the paradox of performance delivery and strategic adaptation (Yukl, 2008). Rising operational and strategic complexity and continuous transformation have intensified the requirement for adaptable leaders at all levels (Huy, 2001, 2002; Balogun, 2003). At the university of Namibia as in other businesses significant resources are devoted to the selection and development of leaders (Northouse, 2007; Murphy & Ensher, 2008), effective leadership, considered a critical contributor to transformation success (Alimo-Metcalfe & Alban-Metcalfe, 2005), remains a scarce, corporate 'natural resource' (Tichy & Devanna, 1990).

Additionally, does Kotter (1990), argues that inadequate leadership remains a significant factor in the continued, low success rate of business transformation initiatives (Beer & Nohria, 2000); this represents a significant issue for organisations such as the university of Namibia. Katz and Kahn (1978) are of the opinion that when team members willingly and freely offer their influence to others in support of shared goals, shared leadership can provide organisations such as UNAM with competitive advantage through advances in commitment, in the personal and organisational resources detected on complex tasks, in openness to reciprocal influence from others, and in the sharing of information. Consequently, they argued, "Those organizations in which influential acts are widely shared are most effective" (p, 332).

Hence, the problem statement that this paper tries to answer is "How can shared leadership through the lens of a social identity theory perspective contribute towards UNAM leaders becoming more effective in achieving their organisational goals?"

BUILDING ON THE SOCIAL IDENTITY IN THE ANALYSIS OF LEADERSHIP

There are a number of definitions and views on the nature of leadership in the literature. According to Nirenberg (2001), leadership is a social function necessary for the achievement of collective objectives. In contrast, does Yukl (1989) states that "researchers usually define leadership according to their individual perspectives and the

aspects of the phenomenon of most interest to them (p, 252). However, numerous authors view leadership critical for enabling organisational and or team effectiveness (Cohen & Bailey, 1997; Hackman & Walton, 1986; Kozlowski, Gully, Salas, & Cannon- Bowers, 1996), and some equally maintained that it is the most critical ingredient for organisational survival, (Sinclair, 1992; Zaccaro, Rittman, & Marks, 2001).

Sorenson (2002) notes that Stogdill's Handbook of Leadership, first published in 1974, listed 4,725 studies of leadership and 189 pages of references, yet Stogdill himself concluded that the endless accumulation of empirical data has not produced an integrated understanding of leadership. Several different categories of leadership paradigms have been suggested by various researchers. For example, Bass (1985) stated that there are four dimensions of transformational leadership, three dimensions of transactional leadership, and a nonleadership dimension of laissez-faire leadership (Bass, 1985). Avery (2004) suggested categorising leadership into four leadership paradigms, while Goleman (1995) prefers six leadership paradigms.

Bass asserts that visionary (transformational) leaders are nearly always more effective than transactional leaders, but others (e.g. Judge and Piccolo, 2004; Wallace, 1997) dispute this. While this in itself does not invalidate the concept of visionary leadership, Bass attributes more to visionary (transformational) leadership than perhaps he should. As Avery (2004) suggested, both transactional and visionary leadership are valid forms of leadership, but visionary leadership may be applicable more broadly, including in situations where there are insufficient resources for the manager to rely on supplying external rewards (Judge and Piccolo, 2004), or where the situation is complex and ambiguous, and relies strongly on follower knowledge and commitment. Avery suggests that there are other situations in which transactional leadership is the appropriate form of leadership, such as when followers are unwilling or unable to commit to the leader's vision.

In contrast with Bass's (1985) model, Avery's (2004) paradigms provide a broad basis allowing for different forms of leadership that have evolved at different times and in different places. The paradigms are useful for showing that there is no single best way of thinking about leadership, rather that different kinds of leadership reflect social and historical roots. Avery's paradigms allow leadership to depend on the context, respond to organisational needs and preferences, and involve many interdependent factors that can be manipulated (Bryman, 1992; Shamir and Howell, 1999; Yukl, 1999).

While traditional and contemporary leadership theory often focuses on describing individual differences in leadership as either a function of the person (trait) or the situation (state) (e.g., Judge & Bono, 2000; Judge, Bono, Ilies, & Gerhardt, 2002; Vroom, 2000), advocates of each position acknowledge the importance of future research studying the interaction of the two (e.g., Sternberg & Vroom, 2002). The purpose of this article is to propose an interactionists framework to the science and practice of leadership that reflects contemporary social-cognitive models of human action.

It will be important for UNAM to note what Rost (1993) maintain in that the importance of studying leadership as a relationship rather than simply a list of personal or situational characteristics, and laments the misplaced focus on "the peripheral elements surrounding leadership and its content instead of on the nature of leadership as a process, on leadership viewed as a dynamic relationship" (p. 4). While most psychologists have accepted a conceptual person-situation interactional paradigm (Bem, 1982; Chatman, 1989; Pervin, 1989; Schneider, Smith, & Goldstein, 2000), the persistence of scholarly leadership research focusing purely or primarily on traits (e.g. Judge & Bono, 2000; Judge, Bono, Ilies, & Gerhardt, 2002) or situations (e.g., Vroom, 2000) indicates sporadic empirical application.

DEFINING AND CONCEPTUALISING ORGANISATIONAL IDENTITY

According to Dutton, et al. (1994) has organisational identity become an important theoretical discourse to explain the relationship between an employee and employer and has been defined as "a cognitive linking between the definition of the organisation and the definition of self" (p, 242). In principle strong organisational identity arises when an individual incorporates their perception of their employer's values into their own belief system, thus individual and organisational ideals are compatible. Such a process arises from two routes, firstly, affinity with an employer where individuals self-select to join an organisation whose values match their own

long standing beliefs, or secondly, emulation, where an individual's beliefs change during the period of employment to become closely tied with those of their employer (Pratt, 1998).

The theoretical basis of work in the field concentrates on social identity theory and self-categorisation theory. Albert and Whetten's (1985) seminal work made a case for organisational identity being a distinct form of broader social identity, an area explored in the 1970s by academics such as Tajfel (1978). Organisational identity examines the process of how employees define themselves through their relationship with their employer. The process of identification essentially occurs firstly through social comparisons between themselves and distinct groups. Thus identity is defined by "the individual's knowledge that he/she belongs to certain social groups together with some emotional and value significance to him/her of this group membership (Tajfel, 1972, p. 292). In short, individuals define themselves by joining social groups that have meaning or importance to them.

For example, a Dean may define himself/herself as being part of the University of Namibia whose goal is to help educating the Namibian Nation. In addition a Dean may also be part of a profession, which enhance their self-esteem and self-identity. Subsequently, in order to clarify an individual's identity a second process of social connection occurs between groups. Those in the same social group are perceived to be alike, with a shared frame of reference and norms, and become part of the 'in-group'. As a consequence differences with others are amplified and thus are categorised as the 'out-group', thereby making the in-group membership more distinctive and attractive (Pratt, 1998). The implications of the process of social identity is that individuals define themselves through group membership and ascribe to characteristics of the group; the stronger the identification the more an individual's attitudes and behaviour are governed by group norms (Sparrow and Cooper, 2003).

Moreover, organisational identity is a distinct manifestation of social identity. The construct has often been associated with three related concepts: internalisation, affective commitment and positive organisational fit (Pratt, 1998). The distinction between organisational identity and these other concepts is that it is self-explanatory; hence an employee shares organisational values and beliefs rather than merely accepting them. Sparrow and Cooper (2003) briefly summarise the distinction; commitment raises the question of 'should I maintain membership with my employer', whereas identity revolves around the issues of 'who am I' and to 'what extent do I define myself through the organisation'. In essence and individual can be committed to an organisation without necessary defining themselves by its values.

Much of the research on organizational identity builds on the idea that identity is a relational construct formed in interaction with others (e.g. Albert & Whetten, 1985; Ashforth & Mael, 1989; Dutton & Dukerich, 1991). For example, Albert and Whetten (1985: 273, citing Erickson, 1968) described the process of identity formation:

in terms of a series of comparisons: (1) outsiders compare the target individual with themselves; (2) information regarding this evaluation is conveyed through conversations between the parties ('polite boy, 'messy boy') and the individual takes this feedback into account by making personal comparisons with outsiders, which then; (3) affects how they define themselves.

Albert and Whetten concluded on this basis 'that organizational identity is formed by a process of ordered inter-organizational comparisons and reflections upon them over time.' In social identity theory and identity theory, the self is reflexive in that it can take itself as an object and can categorize, classify, or name itself in particular ways in relation to other social categories or classifications. This process is called self-categorization in social identity theory (Turner, Hogg, Oakes, Reicher, and Wetherell 1987); in identity theory it is called identification (McCall and Simmons 1978). Through the process of self-categorization or identification, an identity is formed.

In social identity theory, a social identity is a person's knowledge that he or she belongs to a social category or group (Hogg and Abrams 1988). A social group is a set of individuals who hold a common social identification or view themselves as members of the same social category. Through a social comparison process, persons who are similar to the self are categorized with the self and are labelled the in-group; persons who differ from the self are categorized as the out-group. In early work, social identity included the emotional, evaluative, and other psycho-logical correlates of in-group classification (Turner et al. 1987:20). Later researchers often separated the self-categorization component from the self-esteem (evaluative) and commitment (psychological)

components in order to empirically investigate the relationships among them (Ellemers and Van Knippenberg 1997).

The two important processes involved in social identity formation, namely self-categorization and social comparison, produce different consequences (Hogg and Abrams 1988). The consequence of self-categorization is an accentuation of the perceived similarities between the self and other in-group members, and an accentuation of the perceived differences between the self and out-group members. This accentuation occurs for all the attitudes, beliefs and values, affective reactions, behavioral norms, styles of speech, and other properties that are believed to be correlated with the relevant intergroup categorization. The consequence of the social comparison process is the selective application of the accentuation effect, primarily to those dimensions that will result in self-enhancing outcomes for the self. Specifically, one's self-esteem is enhanced by evaluating the in-group and the out-group on dimensions that lead the in-group to be judged positively and the out-group to be judged negatively.

As Hogg and Abrams (1988) make clear, the social categories in which individuals place themselves are parts of a structured society and exist only in relation to other contrasting categories (for example, black vs. white); each has more or less power, prestige, status, and so on. Further, these authors point out that the social categories precede individuals; individuals are born into an already structured society. Once in society, people derive their identity or sense of self largely from the social categories to which they belong. Each person, however, over the course of his or her personal history, is a member of a unique combination of social categories; therefore the set of social identities making up that person's self-concept is unique.

THE ROOTS OF IDENTITY

Much of social identity theory deals with intergroup relations—that is, how people come to see themselves as members of one group/category (the in-group) in comparison with another (the out-group), and the consequences of this categorization, such as ethnocentrism (Turner et al. 1987). Therefore in the case of UNAM one might believe that the leaders that participate in the research all fit in the university setting and such belong to a particular social identity which means that they all should foster oneness with this particular group, being like others in the group, and seeing things from the group's perspective. However, most of the individuals belonging to the group also have a particular role identity meaning they act to fulfil the expectations of the role (Deans, Directors etc.), coordinating and negotiating interaction with role cohorts, and influencing the environment to control the resources for which the role has responsibility.

Herein lays an important distinction between group- and role-based identities: the basis of social identity is in the uniformity of perception and action among group members, while the basis of role identity is inherent in the differences in perceptions and actions that accompany a role as it relates to counter roles. In group-based identities, the uniformity of perception reveals itself in several ways (Hogg and Abrams 1988; Oakes, Haslam, and Turner 1994). These may be characterised as cognitive, attitudinal, and behavioral dimensions.

Social stereotyping primarily occurs amid the cognitive outcomes. Therefore in the case of UNAM stereotyped perceptions of in-group members and out-group members will be increased and will be made more homogeneous by those individuals whom identify with the in-group (Haslam, Oakes, McGarty, Turner, Reynolds, and Eggins 1996). In accordance the individuals' group identification will also influence the view of the self as prototypical in the group (Hogg and Hardie 1992). Yet, others have found that in-group homogeneity is especially strong when no motivational forces exist to distinguish the self from others within the group (Brewer 1993; Simon, Pantaleo, and Mummendey 1995).

According to the attitudinal dimension, the leaders of UNAM uniformly make positive evaluations of a group, when they become group members. For example, social identity researchers have found that individuals who identify with the group feel a strong attraction to the group as a whole, independent of individual attachments within the group (Hogg and Hardie 1992). Subsequently, they have found that in-group identification leads to greater commitment to the group and to less desire to leave the group, even when the group's status is relatively low (Ellemers, Spears, and Doosje 1997).

Finally, people behave in tandem within a group with which they identify. Even in a low-status minority group, for example, individuals who use the group label to describe themselves are more likely than not to participate in the group's culture, to distinguish themselves from the out-group, and to show attraction to the group in their behaviour (Ethier and Deaux 1994; Ullah 1987). Similarly, groupthink or extreme concurrence in decision-making groups is much more likely under conditions of high social identification (Turner, Pratkanis, Probasco, and Leve 1992). In addition, social identification is one of the principal foundations for participation in social movements (Simon, Loewy, Stuermer, Weber, Freytag, Habig, Kampmeier, and Spahlinger 1998).

METHOD

Grounded theory is an accepted and fitting method to enrich our knowledge of leadership. Grounded theory uses qualitative research methods with the aim of generating theory which is grounded in the data, rather than testing existing theories (Glaser, 1978, 1992; Strauss & Corbin, 1990). The importance of the grounded theory approach in the present study was that it anticipated the complexities of the Namibian University under inquiry without rejecting, ignoring, or suppose missing relevant variables. Therefore, the richness of the data ensured that the resulting theory was able to provide a holistic understanding to the leadership process for participants and fellow researchers alike.

The grounded theory methodology involves integration of data collection and data analysis to achieve 'constant comparison' (Creswell, 1998). In this study, data collection involved a variety of interviews. The leaders were assembled at a 2 day workshop to gather basic background information on the leaders. Next, the leaders were break up in smaller groups to explore the emergent themes from prior data and yielded a set of ideas and models of the leader development process. Finally, a group interview was conducted to finalize model specifications and contingencies. All interviews were open-ended and semi-structured conversations focusing on the leaders' developmental experiences. Feedback were recorded and later transcribed by the researcher.

The concurrent procedure included jotting down ideas that came to mind, making a list of key topics and passages, coding, turning topics into categories, and assembling the material belonging to each category in one place to perform the preliminary analysis. This grounded theory coding process allowed the researchers to both construct codes and generate a description of the themes for analysis. The agreed upon themes, coupled with meaning derived from information gleaned from the literature, will be described in detail in the following section.

FINDINGS

From the analysis of field data, a theory was developed including a model portraying leadership and alignment in UNAM. This model was composed of four major themes: (1) Communication and relationships, (2) social identification (3) culture, and (4) leadership paradigms of development. In the following passages, themes of the model will be described, theoretical suggestions will be formally stated, and support for the model will be provided using the leaders' own descriptions.

Communication and Relationships

During selective coding and the follow-up discussions in the group discussion, it became clear that relationships were the central category in this theory. A central category in grounded theory has analytical power because it pulls together the other categories to provide an explanatory whole (Strauss & Corbin, 1998). Communication and Relationships were considered a central category because all other major categories were connected to it, it appeared frequently in the data, and linkages to all other categories were not forced. Therefore, communication and relationships were a core factor in the development of the UNAM leaders.

According to the data, communication and relationships led directly to effective corporate governance and development of leadership strategies. The three specific sub-themes of communication and relationships included the following: (1) values instilled in influential years through peer interaction, (2) establishing key

personal relationships both in and out of work, and (3) observing other leaders' interactions as well as observing human behavior, in general. The following four excerpts from interview transcripts demonstrate how these three sub-themes of relationships impacted the UNAM leadership development. In the dialogue, the following discussion of the first relationships sub-theme, corporate governance, and its impact on leader development was offered: — "UNAM must show a commitment to ethical behavior in our day to day business practices, operations and organisational culture — we know that it has become the competitive advantage of business governance and executive leadership, linked to our corporate reputation". In addition, for UNAM to create corporate citizenship it will require us as leaders to understand the demand to environmental, social and governance responsibility and it links directly to three fundamental functions of our leadership duties to the organisation and stakeholders we are serving, i.e. protecting stakeholder rights and interests, managing risk and creating long-term business value.

Social Identity

Relationships lead directly to the growth of leadership collegiality. This is reinforced by the Social Identity Theory in that it contends that group membership creates in-group/ self-categorization and enhancement in ways that favour the in-group at the expense of the out-group. The examples (minimal group studies) of Turner and Tajfel (1986) showed that the mere act of individuals *categorizing themselves* as group members was sufficient to lead them to display in-group favouritism. Therefore After being categorized of a group membership, UNAM leaders seek to achieve positive self-esteem by positively differentiating their in-group from a comparison out-group on some valued dimension. This quest for *positive distinctiveness* means that their sense of who they are is defined in terms of 'we' rather than 'I'.

Another important theme in the leadership development model was workload. Workload referred to effort and energy exerted over time and life experience. These leaders were not sitting idly by and magically becoming leaders. Rather, they were actively engaged in challenging educational experiences and challenging work assignments both in and out of the university setting. The three sub-themes of workload were (1) experiencing educational challenges, (2) experiencing challenging jobs, and (3) making mistakes. The following quotation supported the second proposition regarding the impact of workload on the leaders' development. Some leaders described their arduous jobs as educational heads as the following:

"Our day to day programs it very, very challenging. Throughout we need to organize ourselves and try to manage our time due to the fact that we do not have support structures as leaders. However, for a leader you've got to be able to do that. We also have an open door policy and people can come see us, to get our work done in a timely manner is a huge task"

Culture

A third vital variable in the model of leadership development in UNAM was culture. It is suggested that culture impacted the development of leadership strategies directly. The theme culture was composed of the following two sub-themes: (1) identifying personal and UNAM values and (2) understanding people, 'how things work' and 'how UNAM work.' The leaders in this study expressed that through increased self-awareness via feedback, they were able to develop effective strategies for leading.

Leadership Paradigms and Development

To summarize, key relationships led to both aspects of leadership paradigms, identifying with UNAM culture and understanding peers, 'how things work' and 'how UNAM works,' which in turn resulted in the development of leadership identity. Therefore, continuous communication and socialization was proposed as a partial mediator between relationships and the development of leadership paradigms and social identity. Furthermore, leaders asserted that important feedback also came from their workload and engaged experiences, including from job challenges, challenging tasks, and making mistakes. This linkage is shown in the following excerpts of data. First, when referring to how do communities brand UNAM's leaders commented on the link between their workload and engaging the community.'

DISCUSSION AND CONCLUSION

Taken together, the sub-themes of values instilled in influential years in position interaction, establishing key personal relationships, and observing interactions and human behavior demonstrated the central importance of communication and relationships to UNAM leadership development. Therefore, communication and relationships represented a central category in this theory of leadership development in UNAM. Subsequently UNAM leaders need to take cognisance of the fact that categorization is fundamental to human cognition because it serves a basic epistemic function: organising and structuring our knowledge about the world. Therefore, by identifying classes of stimuli that share important properties, categorization allows them to bring order and coherence to the vast array of people, objects, and events that are encountered in daily life (e.g., Smith & Medin, 1981).

UNAM leadership also need to take note of the fact that cognitive representations of social groups play a key role in (a) determining which of the individual leaders belong in to the UNAM category, and then (b) generating inferences about these identified category members. The classical view of categories held that category membership is established by a set of features that are individually necessary and jointly sufficient to define the category (e.g., Katz, 1972). Hence, when there is a shared social identity amongst the Leaders of UNAM there is a motivation to act in ways that advance the group's (UNAM) collective interests and goals and to ensure that one's own in-group is positively distinct from other (out) groups. Moreover, there are also greater opportunities for shared influence and persuasion with the UNAM in-group. Because other in-group members are viewed as similar to oneself, they become a valid source of information and a testing ground for one's own views on relevant dimensions.

Successively, a shared social identity will directs UNAM leaders to agree and to expect to agree where they confront a shared stimulus reality or object of judgement, and a consensual response to some identical situation subjectively validates the response as correct, right, appropriate and/or demanded by the objective situation (Turner 1987; 1991). However a reality is also that within this as in any other group it is the degree to which any response expresses the in-group consensus or norm in relation to a stimulus that makes it influential, that defines it as likely to be true, valid, right and so on. Thus, if UNAM shares a salient relevant identity, responses will differ in the degree to which they express, embody or represent that consensus and individuals will differ in the degree to which they embody that identity.

In conclusion, the social identity theory of leadership views leadership as a group process that arises from the social categorization and depersonalization processes associated with social identity. Prototype-based depersonalization and the behavior of followers play a critical role: They empower individuals as leaders, imbue them with charisma, and create a status differential between leader(s) and followers that has some of the typical characteristics of uneven status intergroup relations, and set up conditions that are conducive to the exercise and possible abuse of power. Additionally, it is also asserted by various authors that in self-categorisation theory, leadership does not flow from rigid, unchanging qualities of the individual, but from a person's perceived position contained by the relationship and or connection of intra-group and intergroup relations that define the identity of the group. Relative prototypicality and leadership are group properties of a person which change with the nature of the group as a whole and how it defines itself, as well as how a group defines itself varies (interacting with other things) with the context within which it is defined. Group identity is not defined simply by intra-group similarities, but by the meta-contrast between how we differ from each other compared to how we differ from them. It would be therefore imperative for UNAM leaders or managers to communicate and create a sense of *shared identity as it* is an important determinant of the likelihood that their attempts to energize, direct, and sustain particular work-related behaviours in their followers will be successful (see also Reicher & Hopkins, 1996). These ideas are a potentially rich source of conceptual explorations and basic and applied empirical research into social identity and leadership.

REFERENCES

- Albert, S., & Whetten, D. A. (1985). Organizational identity. *Research in Organizational Behavior*, 7, 263-295.
Avery, G.C. (2004) Understanding Leadership: Paradigms and Cases. London: Sage.

- Balogun, J. 2003. From blaming the middle to harnessing its potential: creating change intermediaries. *British Journal of Management*, 14 (1): 69-84.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.
- Bass, B. M. (1990). *Bass and Stogdill's handbook of leadership: Theory, research and managerial applications*. New York: Free Press.
- Bass, B. M. (1998). *Transformational leadership: Industrial, military, and educational impact*. Mahwah, NJ: Erlbaum.
- Bass, B. M., & Avolio, B. J. (1993). Transformational leadership: A response to critiques. In: M. M. Chemers & R. A. Ayman (Eds), *Leadership Theory and Research: Perspectives and Directions* (pp. 49–80). London: Academic Press.
- Beer, M. and Nohria, N. (2000b) 'Epilogue', in M. Beer and N. Nohria (eds) *Breaking the Code of Change*. Boston, MA: HBS Press.
- Beer, M. and Nohria, N., eds (2000a) *Breaking the Code of Change*. Boston, MA: HBS Press.
- Bern, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42, 155-162.
- Bern, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88, 354-364.
- Brewer, Marilyn B. 1991. "The Social Self: On Being the Same and Different at the Same Time." *Personality and Social Psychology Bulletin* 17:475-82.
- ___ 1993. "Social Identity, Distinctiveness, and In-Group Homogeneity." *Social Cognition* 11:150-64
- Bryman, A. (1992). *Charisma and leadership in organizations*. London: Sage.
- Burns, J. M. (1978). *Leadership*. New York: Harper & Row.
- Chatman, J. 1989. Improving interactional organizational research: A model of person-organization fit. *Academy of Management Review*, 14: 333-349.
- Cohen, S. G. & Bailey, D. E. (1997). What makes teams work? Group effectiveness research from the shop floor to the executive suite. *Journal of Management*, 23, 239–90.
- Dutton, J.E., Dukerich, J.M. and Harquail, C.V. (1994) Organizational Images and Member Identification. *Administrative Science Quarterly*, 39, 239-263
- Ellemers, Naomi, Russell Spears, and Bertjan Doosje. 1997. "Sticking Together or Falling Apart: In-group Identification as a Psychological Determinant of Group Commitment Versus Individual Mobility." *Journal of Personality and Social Psychology* 72:617-26
- Glaser, B. (1978), *Theoretical Sensitivity*, The Sociology Press, Mill Valley, CA.
- Glaser, B. (1992), *Basics of Grounded Theory Analysis: Emergence v. Forcing*, The Sociology Press, Mill Valley, CA.
- Glaser, B. and Strauss, A. (1967), *The Discovery of Grounded Theory: Strategies for Qualitative Research*, Aldine, Chicago, CA

Goleman, D.P. (1995) *Emotional Intelligence: Why It Can Matter More Than IQ for Character, Health & Lifelong Achievement*. New York, NY: Bantam.

Haslam, S. A., & Platow, M. J. (2001b). The link between leadership and followership: How affirming social identity translates vision into action. *Personality and Social Psychology Bulletin*, 27, 1469–1479.

Haslam, S. A., van Knippenberg, D., Platow, M., & Ellemers, N. (Eds) (2003). *Social identity at work: Developing theory for organizational practice*. Philadelphia, PA: Psychology Press.

Haslam, S. Alexander, Penelope J. Oakes, Craig McGarty, John C. Turner, Katherine J. Reynolds, and Rachael A. Eggin. 1996. "Stereotyping and Social Influence: The Mediation of Stereotype Applicability and Sharedness by the Views of In-Group and Out-Group Members." *British Journal of Social Psychology* 35:369-97

Hogg M. & Vaughan G. (2002) *Social Psychology*. Prentice Hall, Harlow

Hackman, J. R., & Walton, R. E. 1986. Leading groups in organizations. In P. S. Goodman & Associates (Eds.), *Designing effective work groups: 72-119*. San Francisco: Jossey-Bass

Hogg, M. A., & Abrams, D. (1988). *Social identifications: A social psychology of intergroup relations and group processes*. London: Routledge.

Howell, J. M., & Avolio, B. J. (1992). The ethics of charismatic leadership. *Academy of Management Executives*, 6(2), 1.

Howell, J.P., and D.L. Costley (2001). *Understanding Behaviors for Effective Leadership*. Saddle River, NJ: Prentice-Hall.

Huy, Q.N. (1999) 'Emotional capability, emotional intelligence, and radical change', *Academy of Management Review* 24(2):325–345.

Huy, Q. N. Sept. 2001. In praise of middle managers *Harvard Business Review*.; 79(8):72-9, 160

Alimo-Metcalfe, B. and Alban-Metcalfe, J. (2005), "Leadership: time for a new direction?" *Leadership*, Vol. 1 No. 1, pp. 51-71.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluations traits—self-esteem, generalized self-efficacy, locus of control, and emotional stability—with job satisfaction and job performance: A metaanalysis. *Journal of Applied Psychology*, 86, 80–92.

Judge, T. A., Piccolo, R. F., & Ilies, R. (2004). The forgotten ones? The validity of consideration and initiating structure in leadership research. *Journal of Applied Psychology*, 89 (1), 36-51.

Kozlowski, S. W. J., Gully, S. M., McHugh, P. P., Salas, E., & Cannon-Bowers, J. A. 1996. A dynamic theory of leadership and team effectiveness: Developmental and task contingent leader roles. In G. R. Ferris (Ed.), *Research in personnel and human resources management: Vol. 14: 253-305*. Greenwich, CT: JAI Press.

McCall, George J. and J. L. Simmons. 1978. *Identities and Interactions*. New York: Free Press

McKinsey, J. O. (1929). Effect of mergers on marketing, production, and administrative problems. *The Journal of Business of the University of Chicago*, 2, 326–337.

Murphy, S. E. (2001). Leader self-regulation: The role of self-efficacy and "multiple intelligences". In R Riggio, S. Murphy, & F. Pirozzolo (Eds.), *Multiple intelligences and leadership* (pp. 163–186). Mahwah, NJ: Lawrence Erlbaum Associates.

Murphy, S., & Ensher, E. (2008). A qualitative analysis of charismatic leadership in creative teams: The case of television directors. *The Leadership Quarterly*, 19, 335–352.

- Nirenberg, J. 2001. "Leadership: A practitioner's perspective on the literature", *Singapore Management Review*, 23(1):1-33.
- Northouse, p. G. (2007). *Leadership theory and practice* (4th ed.). Thousand oaks, CA: Sage
- Pervin, L. A. (1987) Person-environment congruence in the light of the person-situation controversy. *Journal of Vocational Behavior*, 31, 222-230.
- Pervin, L. A. (1989). Persons, situations, interactions: The history of a controversy and a discussion of theoretical models. *Academy of Management Review*, 14(3), 350–360.
- Pratt, Michael G. (1998). "To be or not to be: central questions in organizational identification." In Whetten, David A., and Paul C. Godfrey (eds.), *Identity in organization*, 171-207. Thousand Oaks: Sage.
- Sinclair, Barbara. 1992. "The Emergence of Strong Leadership in the 1980's House of Representatives." *Journal of Politics* 54: 657-684.
- Pratt, M. G. 2003. Disentangling collective identity. In J. T. Polzer, E. Mannix & M. A. Neale (Eds.), *Research on managing groups and teams*, 5: 161-188. Greenwich, CT: JAI Press.
- Katz, Daniel & Kahn, Robert L. *The social psychology of organizations*, 2nd ed. Wiley. New York, 1978.
- Kotter, John P. *What Leaders Really Do*. Harvard Business Review. 1990.
- Rost, J. C. (1991). *Leadership for the twenty-first century*. New York: Praeger.
- Rost, J. C. (1993). Leadership development in the new millennium. *The Journal of Leadership Studies*, 1(1), 92-110.
- Shamir, B., & Howell, J. M. (1999). Organizational and contextual influences on the emergence and effectiveness of charismatic leadership. *Leadership Quarterly*, 10 (2), 257-283.
- Shamir, B. (1999). Leadership in boundary less organizations: Disposable or indispensable? *European Journal of Work and Organizational Psychology*, 8, 49–71.
- Shamir, B., House, R., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science*, 4, 577–594.
- Simon, Bernd, Giuseppe Pantaleo, and Amelie Mummendey. 1995. "Unique Individual or Interchangeable Group Member? The Accentuation of Intragroup Differences Versus Similarities as an Indicator of the Individual Self Versus the Collective Self." *Journal of Personality and Social Psychology* 69:106-19.
- Simon, Bernd, Michael Loewy, Stefan Stuermer, Ulrike Weber, Peter Freytag, Corinna Habig, Claudia Kampmeier, and Peter Spahlinger. 1998. "Collective Identification and Social Movement Participation." *Journal of Personality and Social Psychology* 74:646-58
- Strauss, A. and Corbin, J. (1994), "Grounded theory methodology: an overview", in Denzin, N. and Lincoln, Y. (Eds), *Handbook of Qualitative Research*, Sage Publications, Newbury Park, CA.
- Tichy, N.M., & Devanna, M. A. (1986). *The Transformational Leader*. New York: John Wiley and Sons.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. S. 1987. *Rediscovering the social group: A self-categorization theory*. Oxford: Blackwell.

Turner, Marlene E., Anthony R. Pratkanis, Preston Probasco, and Craig Leve. 1992. "Threat, Cohesion, and Group Effectiveness: Testing a Social Identity Maintenance Perspective on Groupthink." *Journal of Personality and Social Psychology* 63:781-96

Vroom, V. H. (2000). Leadership and the decision-making process. *Organizational Dynamics*, 28(4), 82-94.

YUKL, G. A. 1989. "Managerial leadership: A review of theory and research", *Journal of Management*, 15(2):251-289.

Yukl, G. (1998). *Leadership in organizations* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Zaccaro, S. J., Rittman, A. L., & Marks, M. A. 2001. Team leadership. *Leadership Quarterly*, 12: 451-483.

PREVALENCE OF HOUSEHOLD FOOD POVERTY IN A SOUTH AFRICAN TOWNSHIP

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ABSTRACT

This study analyzed the prevalence of household food poverty in a township of Kwakwatsi, South Africa. A household was defined to be in food poverty when its monthly food spending is less than the cost of a basic food basket. A proxy food poverty line was used as a measure of food poverty in the area. It was found that about 68 per cent of the sampled households are in food poverty. Higher food poverty rates were found with increasing household sizes, lower educational attainment of the household head and increasing age of the head of household. The results of this study are at household level and provide reference to the types of households likely to be living in food poverty.

INTRODUCTION

Food security has been an important topic in the current environment of high food prices across the globe. Higher food prices have triggered an increase in hunger worldwide (FAO, 2008: 2). FAO (2012) estimates show that the number of chronically hungry people in 2007 increased by 75 million over and above FAO's estimate of 848 million undernourished in 2003–05, with much of the increase attributed to high food prices. The vast majority of the world's undernourished people live in developing countries. The proportion of people who suffer from hunger in the total population remains highest in sub-Saharan Africa, where one in three people is chronically hungry.

Research indicates that South Africa is food secure at a national level as it adequately produces its main staple foods and has the means to import what it needs to meet its food requirements (Frayne, et al., 2010). Household level analysis reveals a different picture. The South African reality is that approximately 14 million South Africans are vulnerable to food insecurity. Among these, women, children and the elderly are particularly vulnerable. Further analysis shows food insecurity is highest among the African population (Frayne, et al., 2010; Battersby, 2011; Rudolph, et al., 2012). A study by Jacobs (2009) concluded that approximately 80% of households could not afford to buy a basic nutritional basket of food costing an average of R 262 per person per month (at 2005 prices). A study by Rudolph et al. (2012) in selected Johannesburg townships found that 56% of sampled households were food insecure, with 27% severely food insecure. The study concluded that levels of food security are principally related to household income and the ability to access food through purchase. A study by the African Food Security Urban Network (AFSUN) in 11 Southern African cities demonstrates the strong links between urban poverty and high levels of food insecurity at household level, with the majority of poor urban households surveyed reporting conditions of food insecurity (Crush et al, 2012).

It is well documented that South Africa's historical circumstances have shaped the present configuration of poverty and opportunities along racial lines. Disadvantaged groups were systematically left with relatively little in the way of land and other resources. Food consumption is an important issue in South Africa, given its relation to poverty and deprivation. A number of policy changes have been implemented since 1994 in order to address these problems. Part of these has been the pronouncement that food security is part of the section 27 Constitutional Rights in South Africa. The Constitution states that every citizen has the right to have

access to sufficient food and water (RSA, 1996). Further efforts to address food security include the adoption of the Integrated Food Security strategy. The South African Integrated Food Security Strategy seeks to attain universal physical, social and economic access to sufficient, safe and nutritious food by all South Africans at all times to meet their dietary and food preferences for an active and healthy life (Department of Agriculture, 2002). With the pressing need to increase food security, understanding the determinants of demand for food has become a vital task.

This paper aims to report the results of a study which analyzed the prevalence of food insecurity by using a food poverty line measure. A household was defined to be in food poverty when it is unable to secure enough food to ensure adequate intake for all its members. The South African National Department of Agriculture's proxy food poverty line was used as a measure of food poverty. A household's total food expenditure was compared to the proxy food expenditure poverty line of R260 per adult per month (Department of Agriculture, Forestry and Fisheries, 2012).

BACKGROUND OF THE STUDY AREA

Kwakwatsi is a residential township in the northern region of the Free State Province. The area is a semi urban residential township for the town of Koppies. Koppies is located approximately 200 km south of Johannesburg. The population size of Kwakwatsi is estimated at 13 226 persons. There are 3 443 official residential sites, of which 3019 are occupied. The strategic national railway line from the Cape provinces to Gauteng province passes through Koppies. The area is part of the Ngwathe Municipality, with its head office in Parys (Ngwathe Municipality, 2009). Previous studies have found seemingly high poverty levels in the area; where 77% of the households were found to be living below their poverty lines when using an income poverty measure. On average, poor households had an income shortage of 56% of their poverty line (Sekhampu, 2012).

METHODOLOGY

This study provides an analysis of food poverty in a South African township of Kwakwatsi. The research is based on a quantitative survey method using questionnaire interviews. Maps were obtained for the different areas of Kwakwatsi and a stratified sample was compiled by taking into account the geographical distribution and concentration of people in different areas of the township. Plots/sites at which field workers were supposed to complete questionnaires were identified individually from the map before the field workers went out. However, where people could not be obtained for an interview, or where it was impossible to trace the house, a next pre-selected household was interviewed. Respondents were under no obligation to participate in the survey if they wished not to do so. The questionnaire included information on demographics, participants' income and expenditure patterns and their general view about their socio-economic status. Data were collected on monthly household expenditure for food and non-food items.

Participants

A total of 270 questionnaires were randomly administered in the area through face to face interviews. Two field workers completed the survey via a structured questionnaire. Of the 270 questionnaires administered, 8 respondents refused to participate. A total of 12 questionnaires were discarded due to incomplete responses. Data from 250 households was analyzed to serve the purpose of this study. To obtain a sample size that would supply statistically reliable results and be representative of the population of the area, the researcher relied on the experience and convention regarding similar surveys (Sekhampu, 2004; Slabbert and Sekhampu, 2009; Dubihlela, 2011) conducted in similar locations in South African townships.

Measuring food poverty

A household was defined to be in food poverty when it is unable to secure enough food to ensure adequate intake for all its members. The Department of Agriculture's proxy food security poverty line was used as a measure of food poverty. Each household's total monthly food expenditure was compared with their specific food poverty line based on household size, gender and age distribution of the household members. The South African food

security policy recommends an adult individual daily energy consumption of 2650 kilojoules. The policy sets an adult equivalent food poverty line of R260 per individual expenditure for food every month to serve as a proxy indicator for food security. This amount is said to cover 70% of the basic nutrition basket (Department of Agriculture, Forestry & Fisheries, 2012). Stats SA (2007) notes that the cost of a child in South Africa is roughly the same as the additional cost of an adult when estimating poverty rates. This suggests that the additional complexity of adult equivalence calculations may be unnecessary

RESULTS

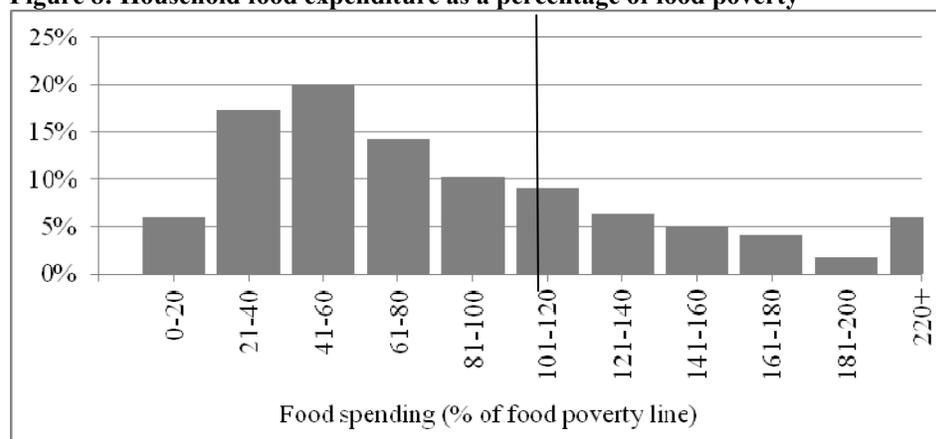
Characteristics of the sample group

The sample data was based on responses from the head of the household. The results showed that the youngest head of household was 22 years, with the oldest at 76 years old. The number of persons per household varied from 1 to 12 members. The average household had 4 members. There were greater variations in household income, with the lowest household income recorded at R30 (\$3.3) per month and the highest at R18 000 (\$2000). Household income is the total income earned/ received by the various household members. Furthermore, 46.2% of households were headed by female. The average number of years of schooling of the respondents was 5.3 years, which equates to primary schooling education. An analysis of the marital status of the respondents shows that 44.5% were married. Regarding the employment status of the respondents; 56.3% were not employed. The lowest monthly food expenditure was R85 (\$9.4) and the highest at R3 250 (\$361) per month. The monthly average food expenditure was recorded at R693 (\$77).

Prevalence of food poverty

For the purpose of this study a food poverty line was individually calculated for each household, and the household's food expenditure compared to its own individual poverty line. On average, households in Kwakwatsi spent 87% of the cost of a basic food basket. Household food spending averaged 87% of the food poverty line. The severity of food poverty depends on the distribution of food spending on either side of the food poverty line. Figure 1 show the distribution of household food expenditure in relation to the food poverty line. Food poor households are those to the left of the solid bar – these are households in which food expenditure was less than 100% of their adequate cost of a basic diet. The results of the survey showed that 68% of sampled households were food poor. Of the poor households about 23% had their food expenditure which was less than 40% of the cost of their adequate food basket.

Figure 8: Household food expenditure as a percentage of food poverty



An analysis of food spending and poverty rates in relation to the various demographic characteristics was undertaken. Female-headed households had a higher average food spending (88% of the food poverty line) compared to male-headed households (85%). This is despite the fact that male-headed households had a lower poverty rate (71%) than female-headed households (75%). Households where the head has higher educational

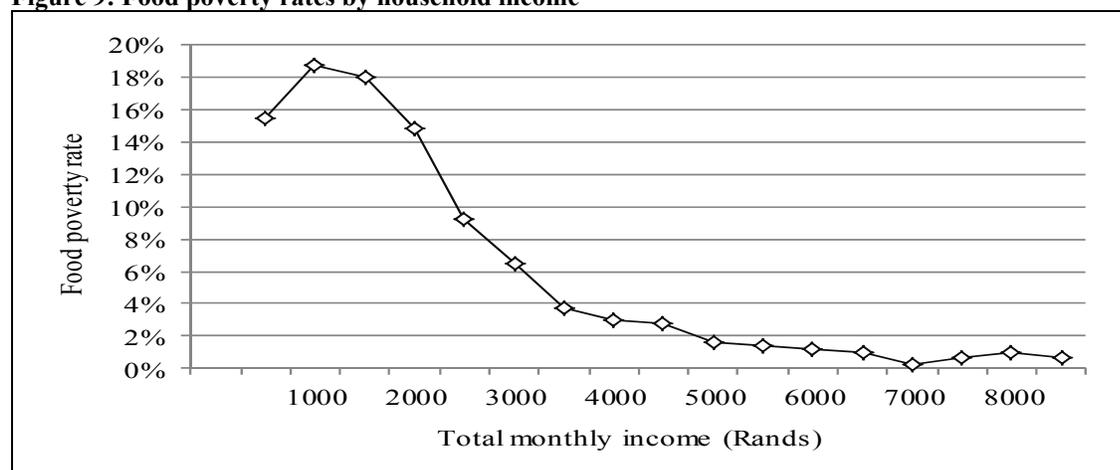
attainment (measured by the number of years schooling) had lower food spending than those with lower educational attainment. Households where the head is younger than 30 years had a lower food poverty rate (61%) compared to those in older age groups (50 years and older had a food poverty rate of 73%).

Table 1: Household food spending and poverty rates by demographic characteristics

	n	Household food expenditure (% of food poverty line)	Households in food poverty (%)
All households	250	87%	68%
Education of household head			
No schooling	31	76%	77%
1 - 5 years	39	70%	86%
6-10 years	174	93%	70%
> 10 years	6	59%	79%
Age of household head			
< 30 years	19	109%	61%
31 - 40 years	65	90%	76%
41 - 50 years	62	82%	77%
> 50 years	104	84%	73%

Households were further ranked by total monthly income and compared to the average food poverty rate in each category (figure 2). Food poverty rates were averaged for income deciles of R500 (\$ 55.60). Food poverty rates were inversely related to household income. Households with income greater than R8000 (\$889) had a food poverty rate of 0.7%. Food poverty was more prevalent in lower income households. A comparison of household size and food poverty rates seem to suggest an opposite relationship (figure 3). Household size was positively related to food poverty – food poverty rates were seen increasing with household size. Households of seven or more persons had the highest food poverty rate (96%), while one or two persons household had lower poverty rates, 52% and 60%, respectively. Food poverty rates were similar across various age categories for the household head in both male and female-headed households, except for one person households. Households headed by a male on average spent 35% of household income on food - this is in comparison to 27% for female-headed households.

Figure 9: Food poverty rates by household income

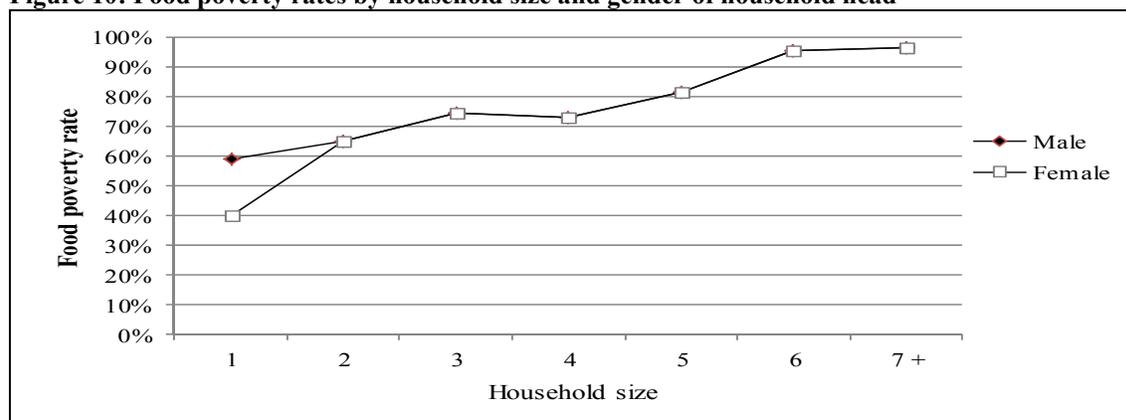


DISCUSSION AND CONCLUSIONS

The aim of the study reported in this article was to analyze the prevalence of food poverty in a South African township of Kwakwatsi. The results indicate that 68% of the sampled households are food poor. Food poverty rates were highest among households headed by female compared to male. Higher food poverty rates were found

with increasing household sizes, lower educational attainment and increasing age of the head of household. Levels of food poverty in the area are primarily related to household income and limited financial means to attend to the needs of the household. Household income is important as it determines how much can be spent on various needs of the household. These findings are consistent with similar studies on the topic. A study by Onianwa and Wheelock (2006) in the USA found a positive relationship between a household's food security status and household income. Similarly, a study by Crush et al (2012) in selected Southern African cities concluded that lowest income households experienced the highest level of food insecurity.

Figure 10: Food poverty rates by household size and gender of household head



Larger household sizes had increased incidence of food poverty. Large households were seen to be spending more of their income on food compared to smaller households. Households with seven or more members spent on average 32% of household income on food, in comparison to 27% for households with less than 3 members. It was expected that household size would make a significant contribution to household food poverty. The negative impact could be as a result of an increase in the dependency ratio in larger households. Food poverty incidents varied with the age of the household head. Households where the head is younger than 30 had a lower food poverty rate (61%) compared to those in older age groups (50 years and older had a food poverty rate of 73%). In a related study, Bashir et al. (2012) found that an increase of one year in the age of household head decreases the chances of a household to become food secure. A study by Omonoma & Agoi (2007) in Nigeria found an inverse relationship between the age of household head and food security. The results of this study seem to augur with a study by Arene and Anyaeji (2010), who concluded that the increased age of the household head had a positive effect on food security status.

The results of this study can provide useful information for policy-makers in efforts to improve urban household food security in South Africa. Food production at household level needs to be encouraged in order to ensure increased opportunities to access food. Improvements in income earning opportunities should also be made. Targeted programs to female-headed households need to be investigated, as female bears the brunt of food poverty. Public work programs targeting women might have a significant dent on food poverty as research indicates that women's income is likely to be spent on food. It is worth noting that a major shortcoming of the methodology used in this study is that it asks whether a household's food expenditure represents a proxy for an adequate nutritional basket. This measure of household food poverty does not consider intra-household food allocation. Further research could compare results of various assessment tools. Information provided through this study is at household level and provides reference to the types of households likely to be living in food poverty in a South African township context.

REFERENCES

Arene, C., & Anyaeji, C. (2010). Determinants of Food Security among Households in Nsukka Metropolis of Enugu State, Nigeria. *Pakistan Journal of Social Sciences*, 30(1), 9-16.

Bashir, M., Schilizzi, S., & Pandit, R. (2012). *The Determinants of Rural Food Security: the case of Landless Households of the Punjab, Pakistan*. Crawley: aSchool of Agricultural and Resource Economics, The University of Western Australia.

Battersby, J. (2011). *The state of urban food insecurity in Cape Town*. Urban Food Security Series no.11. Cape Town: African Food Security Network.

Crush, J., Frayne, B., & Pendleton, W. (2012). The crisis of food insecurity in African Cities. *Journal of Hunger & Environmental Nutrition*, 7, 271-292.

Department of Agriculture. (2002). *The integrated food security strategy of South Africa*. Pretoria: Government Printer.

Department of Agriculture, Forestry and Fisheries. (2012). *Food Security Policy of the Republic of South Africa*. Government Printer: Pretoria.

Dubihlela, D. 2011. *Socio-economic challenges and the survival mechanisms for the female-headed households in the Bophelong Township*. Vanderbijlpark: North-West University (M.Com Dissertation).

FAO. (2008). *The state of food insecurity in the world: higher food prices and food security - threats and opportunities*. Rome: United Nations' Food and Agricultural Organisation.

FAO. (2012). *The state of food insecurity in the world: economic growth is necessary but not sufficient*. Rome: United Nations' Food and Agricultural Organisation.

Frayne, B., Pendleton, W., Crush, J., Acquah, B., Battersby-Lennard, J., Bras, E., et al. (2010). *The State of Urban Food Insecurity in Southern Africa*. Urban Food Security Series No. 2. Kingston and Cape Town: Queen's University and AFSUN.

Jacobs, P. (2009). *Identifying Targets for Household Food Security in South Africa*. Pretoria: Centre for Poverty, Employment and Growth, Human Science Research Council.

Ngwathe Municipality. (2009). *Integrated development plan review 2009-2010*. Parys: Ngwathe Municipality.

Omonoma, B., & Agoi, G. (2007). An analysis of food security situation among Nigerian urban households: evidence from Lagos State, Nigeria. *Journal of Central European Agriculture*, 8(3), 307-406.

Onianwa, O., & Wheelock, G. (2006). An analysis of the determinants of food insecurity with severe hunger in selected southern states. *Southern Rural Sociology*, 21, 80-96.

RSA (Republic of South Africa). (1996). *Constitution of the Republic of South Africa, 1996, No 108 of 1996*. Pretoria: Government Printer.

Rudolph, M., Kroll, F., Ruysenaar, S., & Dlamini, T. (2012). *The state of food insecurity in Johannesburg*. Kingston and Cape Town: Queen's University and AFSUN.

Sekhampu, TJ. 2004. *An in-depth micro-economic analysis of the poor in Bophelong with special emphasis on the activities they use to sustain themselves*. Vanderbijlpark: North-West University (M.Com Dissertation).

Slabbert, TJC & Sekhampu, TJ. 2009. *Bophelong: a socio-economic & environmental analysis. Research report no.22*. Vanderbijlpark: Vaal Research Group.

Sekhampu, TJ. (2012). Poverty in a South African township: the case of Kwakwatsi. *African Journal of Business Management*, 6(33), 9504-9509.

MULTI-DISCIPLINARY SITUATION GAME “FACTORS OF GROWTH” DEVELOPMENT AND PRACTICAL APPLICATION

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ABSTRACT

Russia has now reached a point where the economy and social sphere are in demand of thousands of competent managers. At the same time, a huge number of applicants are ready to storm universities and business schools to become not just managers, but world-class specialists in the field of management science and international management. To make education interactive and dynamic students are offered with a business game “Factors of Growth” (“In” - tray game). Central concept of the game is to connect theoretical methods and practical needs, in easy form to summarize and refresh skills learned in several disciplines.

INTRODUCTION

Global process in economics causes a radical change of methodological approaches in managerial education. The business environment imposes new requirements for business school and universities graduates. They should be able quickly integrate into the business process of any company that operates both on the domestic and foreign markets. Usually two approaches to internationalization of education are distinguished:

1. Academic mobility of students and teachers.
2. Changes in the training of specialists using international standards.

Academic mobility is interpreted as the exchange of students, academic and administrative staff through training in foreign universities and participating in joint scientific researches; opening international offices or campuses and summer schools. Export of educational services for European and American universities and business schools is a matter of survival and saving of teaching traditions, because the birth rate in developed countries falls, the pension burden on the population grows. Experts estimate that 70% of all countries are engaged in exporting their educational services, market leaders are educational institution from Western Europe and North America as well as Australia, New Zealand and Japan [Liday, 2012].

Internationalization of education models is displayed in the application of educational standards. Being local or international, those standards regulate quality of educational services. Business environment is not interested in the theoretical knowledge but in the concrete, measurable results. That is the reason of applying ‘learning by doing’ concept in managerial training programs. This concept is fully realized in business games specially developed for different level students.

In developing a management situation games for Bachelor program students, we could draw upon more than ten years of experience with management games in higher education, which allowed us to select the most effective didactical means in order to reach the learning outcomes. This paper shows the experience of the implementation of situational business game in the practice of management education as an example of application of the ‘learning by doing’ concept.

LITERATURE REVIEW

The first business game was developed by professor Maria Birshstein (Russia) in 1932 and it was carried out in Leningrad Engineering-Economic Institute as organizational and production test and was based on real data. [Бельчиков, Бириштейн, 1989]. Her idea was simple: to train top management as commanders in the war games. The results showed that the experience gained by participants in the game can be successfully applied to the real management situations.

Despite the game method in economic practice was first developed and applied in our country, their popularity and computer realization came a quarter of a century later in the USA. Since the mid 1950s, the United States became the world center of business games development and application. Leading role in the process belonged to the American Management Association [Graham, Gray, 1969]. In 1955, the U.S. Air Force developed and applied the game «Monopolog», which reproduces the logistic process of the U.S. Air Force bases [Renshaw, Heuston, 1957; Jackson, 1959]. The goal was to prepare the purchasing managers. This experience inspired businessmen from the American Management Association, as they realized that decision-making process in military affairs and business are very similar. As a result, in 1956, a well-known business game «Top Management Decision Simulation» was developed [Shim, J.K., 1979]. In the early 1960s in the USA was developed the first business computer game that simulated the activities of producers in competition. It's very sad to realize that in the late 30's business games in our country have been banned, and only in the 70s revived the creation and application of business games. Now there are many business games developed in Russia and other countries which are available for teachers and learners. But at the same time they are not widely used for undergraduate students in our universities and business schools [Kazantsev, Serova, 2000, 2006].

Business game can be used, on the one hand, as a kind of interactive management textbook with a large amount of examples created with students involvement into the process; on the other hand, as a competition facilitator allowing young managers to assume the role of decision-makers in safe, friendly environment.

BUSINESS GAMES IN MANAGEMENT EDUCATION

Generalization of domestic and foreign business games development experience allows us to formulate a number of requirements that ensures the effective implementation of games in educational programs in the context of globalization of business and education. The most important of these requirements are as follows:

1. *Interdisciplinary approach.* The development of science and education now mostly defined by the interdisciplinary integration of different areas of knowledge. The ability to operate with different types of information, easy combine different skills to solve practical and theoretical problems becomes a competitive advantage of the manager.

Chebishev (2000) noted:

In the preparation of the expert who knows how to use the methodology, key concepts and positions of each discipline in interdisciplinary, integrative communication with others, as a means of solving problems in their professional activities.

2. *Team work.* Team work performed as a game is one of the methods of cooperative learning, the best way to train professional interaction. Learners have to find the way to join differently-oriented students in one business process and reach the goals. They can learn from each other, try to split responsibilities and understand individual input in common success. Teamwork allows them to get the solutions and train different decision-making procedures.

3. *Global informational and communication environment use.* During the period of transition to a global information society technology is playing a great role in unification of educational standards. Strategies for internationalization of the leading business schools include, along with the traditional, full-time education, training via the Internet or an intranet environment, so-called online education. Business games can also be implemented using the online learning instruments as in the regime of real-time and deferred interaction mode [Batista, Cornachione, 2005].

4. *Universal learner educational model use.* In one game students can play several different roles, to interact with colleagues at the bargaining table and through the computer, use the video, audio and tactile information sources. Thus, students can choose the type of activity that is closer to them. In general, students evaluate the knowledge and skills learned in the course of the game much more than the traditional lecture format classes [Kabeil, 2009; Siewiorek, 2012].

In addition to the universal characteristic of managerial games, each game has its own characteristics, arising from its target audience and purpose. Business game "Factors of growth" was designed to combine and update the skills learned in previous years, a number of training courses, taking into account the practice in companies and included training in the partner schools.

MULTI-DISCIPLINARY SITUATION GAME “FACTORS OF GROWTH”

General Description

This game is designed for the group of 18-21 participants organized in teams, 3 members in each. Teams are fixed, so it's not possible to leave or change the team during the game, because achieving success in the game requires collaboration. Factors of Growth game is designed to develop team building, analysis, reporting and time-management skills. Participants' work against the clock, in competition with other teams, to complete a carefully prepared series of tasks designed to enhance awareness, discovery and communication skills.

Storyline of the game is as following: the bank received as collateral for bad loans a small company, whose owners were unable to repay the loan. The young managers' team worked as consultants for the bank. This team is tasked to improve the viability of the company and to propose a development scenario for the next 6 months, after which the company should be sold with profit.

Instruments of the game are: expert assessments, mapping, time series forecasting, ratings, market research instruments, NPV-analysis, Blackboard tools.

Key features of the game are:

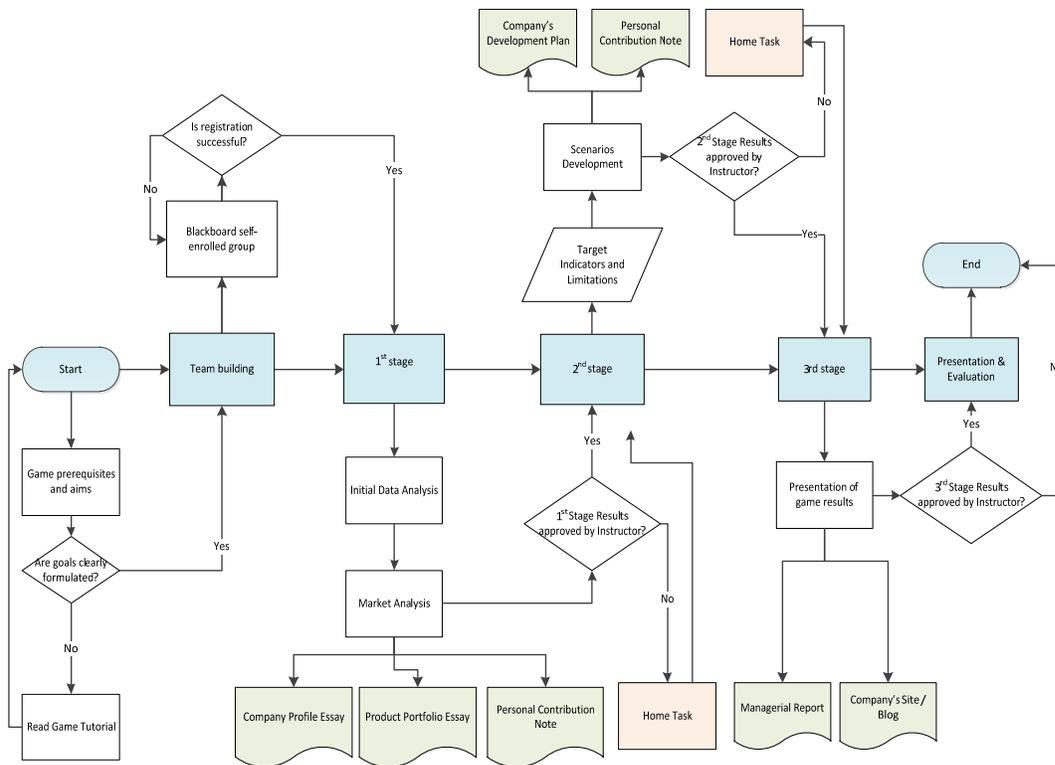
1. Interdisciplinary task. Students need to use financial, marketing, management and IT instruments being limited in time and number of participants.
2. Creation of the evaluation matrix (payoff-matrix) with changeable structure and content. Payoff values partly are defined before the game starts (Fixed cluster), but other values are defined during the game (Non-fixed cluster) using interactive voting instruments and ranks.
3. Business-incubation elements included into final results. Students have to perform managerial report, presentation on the open-floor and site template for the new developed company. Self-assessments are included into managerial report form.
4. Teamwork skills development and evaluation of individual contribution to the common result.
5. Integral coefficients are based on teams work key parameters and summarize students' efforts in different areas of knowledge and developed skills.

Didactic Design

Factors of growth game is designed as situation game, based on real data. Game business units are small business entities which have real prototypes. In this game students interacted within a specially modeled environment that represents real business situation. These interactions are following one base course (see central line on Fig.1) where participants choose some actions, discuss them within the team and prepare reports. They act on the open floor, but use closed group accounts of the Blackboard system (blogs, journals, discussion boards) where results of the game are collected and instructors can evaluate and comment them after each stage. Cooperation between teams is also included into game design as supply chain simulation elements (teams should find suppliers or customers inside using special area) and brand appeal voting on the final presentation.

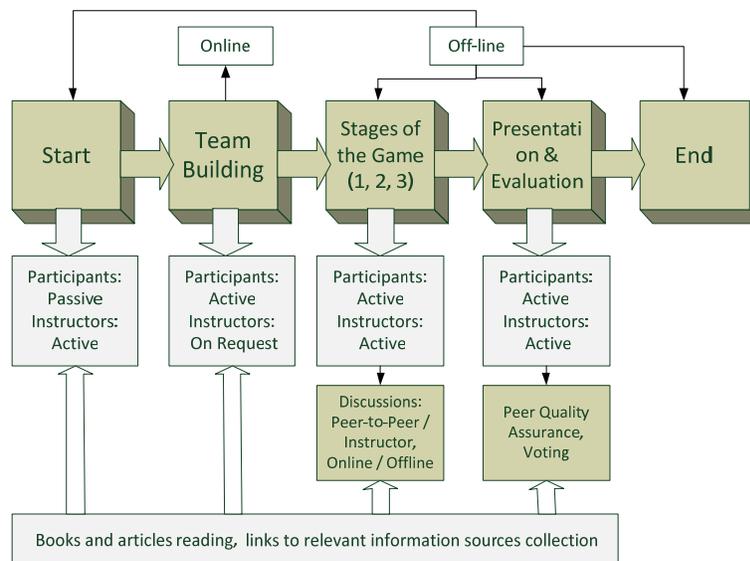
The didactic concept of this managerial game is illustrated in Fig.2. Before the game is started participants are briefed on the overall settings of the game, decisions they have to make, devices they can only use. Then students may analyze the requirements and register in one group of 3 participants in each. So, teams are self-enrolled; after that each group should make the first entry in the group journal about their expectations for the upcoming game. This online task is used as a team-building element in game design.

Fig.1. General course of the Factors of Growth game.



Main part of the game is performed as in-class activity with on-line help (using e-mails and discussion boards). This approach has several advantages. Firstly, the instructor can react to questions and problems without time lag, as it is typical for on-line games. Secondly, the decision making process could be easily observed by instructor, it may eliminate different mistakes, improper time use or skimming. Also atmosphere within the group can be monitored in order to help participants to avoid frustration as a consequence of unexpected results or misunderstanding between team members. Moreover, sitting in one class participants very easy understand their roles and positions of other teams: competitors, potential partners, customers or suppliers.

Fig.2. Overview of the didactic concept of the management game



Each stage of the game is performed in separate day in accordance with the schedule, because game actually is included in teaching plan as a part of the Effective Management course. So, usually it consists of 4 classes (1-3

stages and presentation) of three hours each. Game details related to each stage are given to participants just before the stage begins. Results should be uploaded in essay form before groups leave the class. Between game stages students are usually reading books, articles, discussing results and collect links to relevant information sources.

The first stage starts as lottery, when each team leader pulls out an envelope with the task created as a Consulting project detailed information. The team provides consulting services for one of the following businesses: small coffee-shop, coffee packaging company, bakery or delivering company. Each information pull includes company description, products portfolio (10 positions in each), initial balance-sheet, products quality expertise results, company's mission and project requirements. The 1st stage task is to provide market analysis and to check the status of each product. Results should be summarized in essays "Company profile", "Product portfolio" and small note about personal contribution in team work. Scores are given for following components use:

- SWOT-analysis;
- financial statement analysis;
- description of the competitive environment;
- product rating (based on expert survey);
- product rating (based on method of paired comparisons).

On the second stage participants have to use results of the previous work and additional package including target indicators for business development and limitations (investment returning time is 6 months, size of the company not more than 15 people, i.e. they should keep the company in SME sector). Participants can use virtual bank loan (amount and interest are fixed) and internal sources for business development. The 2nd stage task is to formulate 2-3 possible scenarios for business development, indicate advantages and weaknesses of each and identify possible points of growth for the company. Results should be summarized in essay Company's development plan and small note about personal contribution in team work. Scores are given for following components use:

- description of 2-3 scenarios for business development based on previous results, limitations and market situation;
- business process map for the best scenario;
- product portfolio optimization based on effectiveness indicators;
- 30% of output (or input) is
- calculated set of aggregates which can be obtained after a specified period by renovated business entity.

On the third stage participants use results of previous work and technical requirements to presentation. The 3rd stage task is to prepare managerial report, presentation of team work and blog or site for the client company. Scores are given for following components use:

- managerial report contains all sufficient results from stages 1 and 2, it follows the specific requirements defined in technical section of the task;
- company's site (or blog) contains 5-7 pages and shows competitive advantages of the client company;
- presentation is understandable, prepared in business style and reflects specificity of the particular team work.

Public presentation of game results imitates managerial report to the bank or client company about creation of new value of the business. Participants can use only materials prepared on stages 1-3, additional text or slides are not allowed. Other teams can ask questions or make comments. Instructors check the report and presentation validity and aggregate scores from all the stages of the game. After all presentations came time to vote for the best presentation (teams-"competitors" are not allowed to vote). Leaders of voting gain extra scores. Then instructors prepare teams rank list and announce the end of the game.

This design allows involving different types of learners and switching participant's activity from passive to active and back. Competitive part makes the game more interesting and close to real life, because from equal start each team will come to really different results using only paper, computer plus activity and knowledge of each team member.

Benefits for Teachers and Learners

The first objective of Factors of Growth is to demonstrate challenge of running real business in order to bring forth the whole to which the participants' own work will be connected in future, i.e. to develop managerial skills. The second one is to develop a holistic view of the organization specificity, how it is established and operating in a competitive environment, how its functional structures are interacted.

Use the business game in the learning process allows:

- to practice a competence-based approach to learning;
- to take into account the basic requirements of an effective use of business games in the context of globalization business and education (interdisciplinary, team work, the use of global information and communication learning environment for a "universal learner");
- increase the competitiveness of graduates in the labor market with a focus on international standards;
- to move an accent from knowledge to skills development;
- to keep the situation close to reality, since the role of the decision making person is given to real people (participants), but not to imitators (computer programs);
- to change student's activity from passive to active form;
- to solve the problem of the integration of teaching, research and professional activities of students.

As benefits for participants we can identify the following:

- transformation of the methods and management tools discussed in the various disciplines (management, strategic management, marketing, logistics, project management, financial management, business statistics) into the complex knowledge;
- activation the process of thinking instead of remembering and reflecting;
- applying the concept “learning by doing”, where skills are correlated with particular situations, resulting in the development of cognitive and professional motivation;
- working in interactive groups is playing role of the professional environment and helps to adopt principles of social communication;
- additional motivation for learning;
- complex approach to outcomes and learning processes.

For teachers (instructors) the game provides the following advantages:

- easy to get a feedback and correct the details, complexity of the course;
- apply new pedagogical techniques and computer programs designed for educational purposes;
- engage students into educational process and stimulate their motivation;
- create comfort environment for teaching and learning.

CONCLUSION

The management game introduced in this paper complements more traditional methods of teaching commonly used in management education in a blended-learning course design and provides an excellent opportunity for students to gain relevant first-hand experience through learning-by-doing. Offering a game, instructors use the following methods: mapping, managerial report approach, case approach, on-line instruments and game scenario. Participants of all learning styles may decide to attend this game based on the convenience or opportunity rather than their personal style. But the game includes many opportunities to all styles learners to show their attitude and develop new skills with a help of peers and instructors.

This management game may be complemented in several directions. First, the integration of online communication directly into the management game would make the game more interesting and activate different student's roles. We plan to create a bulletin board and a meeting room for supply chain formation. Learning blogs could be used to allow the participants to record and analyze their strategies and decision-making processes during the game. Dashboard or informational exchange will be used for problems solving and publication of interim results. Also additional game options like market simulation module would allow for new possibilities.

REFERENCES

Batista Igor V. C., Cornachione Edgard B., Jr. Learning Styles Influences on Satisfaction and Perceived Learning: Analysis of an Online Business Game. *Developments in Business Simulation and Experiential Learning*, Volume 32, 2005, p.22-30.

Belchikov J., Birstein M. *Business Games*. Riga: Avots, 1989.

The review of European experience of internationalization of higher education / Education, Audiovisual & Culture Executive Agency, European Commission TEMPUS, E-internationalization for collaborative learning, ISBN 978-966-8558-94-8.

Chebichev N., Kagan V. Higher School in the XXI century: Quality Problems. Moscow, *Journal of Higher Education*, 2000, № 1. P. 19-26.

Jackson J. Learning From Experience in Business Decision Games, *California Management Review*, Vol. 1, No. 2 (Winter 1959).

Kazantsev A., Serova L. *Organization management: Business Games*. Saint Petersburg, 2000.

Liday E.N. The internationalization of business education in the context of globalization: challenges and prospects. *Economy, Business and Law* № 1 (12), 2012, p. 3-8.

Magdy M. Kabeil. UAE The Role of Management Games in Mapping Learning Styles to Elements of Business KnowHow Acquisition: A Case Study. *Issues in Informing Science and Information Technology*, Volume 6, 2009, 531-543.

Renshaw J., Heuston A. *THE Game Monopologs.- Research Memorandum. RM-1917-1-PR. RAND Corporation. 1957.*

Siewiorek A. *Playing toLearn: Business Simulation Games as Leadership Learning Environments*. Centre for Learning Research, University of Turku, SARJA SER.B OSA TOM.347, 2012. ISBN 978-951-29-5007-2.

Shim, J. Playing Executive Management Games to Win, *Data Management*, 15: 28-31 (August 1979).

TRADE SECRET MISAPPROPRIATION VIS-À-VIS THREAT TO COMMERCIAL ESPIONAGE

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ABSTRACT

Trade secret law utilizes a functional definition for determining what protectable subject matter is. Almost anything that is maintained in secret, that is not generally known to competitors and which provides a competitive advantage is potentially protectable via trade secret law. The International Trade Commission (ITC) estimates that misappropriation of trade secrets in China cost the U.S. IP-intensive economy \$1.1 billion in 2009. Trade secret misappropriation typically falls into two areas - where the trade secret is misappropriated by someone who had proper access to it (internal thefts) and where the trade secret is misappropriated by outsiders (external thefts). The EU does not have any specific legal provisions to protect trade secrets or undisclosed information although the laws in various European countries have long standing traditions of protecting trade secrets. Some EU Member States like Italy, Germany and Bulgaria provide strong protection for trade secrets. Injunctive relief, damages and third-party liability available to the private litigant exists in France, Germany, UK, whereas other jurisdictions including India, Singapore, Malaysia, and Hong Kong do not provide statutory protection for trade secrets. The main aim of this paper is to examine the current state of law related to trade secret and to deeply scrutinize the impact of trade secret misappropriation. The authors will also analyze the codified law of trade secret in USA and come up with the possible solutions that whether the European Union and Asian sub-continent also requires the codified law to protect their trade secret. This paper (will) also examines the labour value theory and original position theory to provide a philosophical justification of trade secret.

INTRODUCTION

Intellectual property has always been utilized by enterprises. However, modern businesses have substantially increased reliance on intellectual property. To some extent this is a consequence of the explosion of technological innovation that has occurred over the past few decades. In broad strokes, a trade secret is some sort of information that has value because it is not generally known. The notion of secrecy exempts trade secrets from preemption by patent law. In contrast to patent law, no specific categories exist for defining subject matter eligible for trade secret protection. Trade secret law utilizes a functional definition for determining what is protectable subject matter. Almost anything that is maintained in secret, that is not generally known to competitors and which provides a competitive advantage is potentially protectable via trade secret law.

In countries with a weak rule of law, trade secret theft is so pervasive and so clearly a part of a strategy in certain intellectual property-intensive industries that supply chains in operation in those countries inevitably create vulnerabilities and access points for theft of trade secrets. Companies have suffered crippling financial losses, been forced to eliminate jobs, and scaled back or even terminated their operations because of trade secret theft in countries where there is weak rule of law.

In the present scenario of aggressive competition, industrialization and liberalization every corporate house has certain information with regard to idea and technology. Every firm whose profits depend upon the use of confidential business information runs the risk of incurring serious losses if such information were to be acquired and used without authorization by another firm. The information that enables a company to compete effectively is a 'trade secret' and is therefore of commercial value and worth safeguarding. A successful

company can help to safeguard against the loss of a trade secret, for example, by signing non-disclosure agreements or taking security precautions against business partners. Information that is not known to the public was widely known to an industry is not a trade secret. In the digital age, trade secret misappropriation has become rampant. With flash drives and CD burners, the ease of disseminating large amounts of electronic information in a small package has created new complexities and pitfalls in protecting trade secret rights. The main aim of the authors is to analyze the contemporary issue with regard to trade secret and come up with possible elucidation in this regard.

A trade secret claim can be broken down into three essential elements. First, the subject matter involved must qualify for trade secret protection: it must be the type of knowledge or information that trade secret law was meant to protect, and it must not be generally known to those in the industry. Based on the TRIPS Agreement a trade secret is commonly defined in broad terms in many countries as any information, including but not limited to, technical or non-technical data. In the modern era the number of cases involving trade secret misappropriation was increasing very rapidly. There is no clear definition of the type of “improper” conduct that will result in a finding of trade secret misappropriation. As a general matter, however, if a trade secret was not acquired by permission of the owner as a result of independent creation or through reverse engineering, its acquisition was most likely improper.

Trade secret theft occurs everywhere. Less than three months after California-based Jolly Technologies set up an R&D center in India, an Indian employee was caught uploading proprietary Jolly source code and confidential design documents to her personal web-based email account so that she could ship the files out of the research facility. Moreover, a single attack can affect companies worldwide. For example, between July and September 2011, Symantec documented a cyber attack against numerous companies involved in the development and production of chemicals and advanced materials. The attackers were apparently targeting design documents, formulas, and manufacturing processes, and doing so on a global scale: they were able to compromise the computers of organizations headquartered in Belgium, Denmark, Italy, Japan, the Netherlands, Saudi Arabia, the United Kingdom, and the United States. Trade secrets are vital to the livelihood of many companies and business entities. Companies tend to invest significant time, energy, and money into restructuring various processes, techniques, and methods of operation that generate revenue. Without trade secret protection, competitors would have access to that same knowledge, which could potentially threaten a company’s survival in the marketplace. As such, trade secrets must be heavily guarded.

TRADE SECRET MISAPPROPRIATION

The information is secret when it is not generally known or readily accessible. Such an objective standard means that the information already in the public domain cannot be treated as a trade secret. Moreover this unknown requirement is defined in contact with the persons who normally deal with the secret information in question. This seems to attach a relative standard of secrecy meaning that information generally known or readily accessible to the persons dealing in a particular industry or a business is not a trade secret. Thus, in the international trade context, information is not trade secret if it is within a particular industry or business public domain. It is very necessary to find out the extent to which the information is known outside of the business, by the employees and other involved in the business.

Trade secret does not provide the owner with the exclusive right to use the confidential information. Therefore a person is not legally precluded to use a trade secret, as long as the trade secret was acquired by the improper means. The acquisition of the trade secret a person using improper means is known as misappropriation. Misappropriation is an amorphous tort that is a part of state unfair In the terms of law, the misappropriation is the intentional, illegal use of the property or funds of another person for one’s own use or other unauthorized purpose, particularly by a public official, a trustee of a trust, an executor or administrator or a dead person’s estate or by any person with a responsibility of care for and protect another’s assets. As the trade secrets also constitute a property so the intentional or illegal use of the trade secret is also a misappropriation. Misappropriation of a trade secret involves improper means used to acquire or use a trade secret. Trade secret law outlines three different acts:

- Acquisition of a trade secret—merely obtaining the information;
- Disclosure of the trade secret—merely telling the information to another; and

- Use of the trade secret—using the information to one’s advantage.

The Uniform Trade Secrets Act (the Act) is a model law drafted by the National Conference of Commissioners on Uniform State Laws. The Act not only defines a trade secret, but it outlines remedies for violations of trade secrets. The Act also permits courts to grant protective orders so that secrecy of trade secrets is ensured during the discovery process, which occurs during preparation for a trial. (Courts can also issue orders to prevent witnesses and others from revealing trade secrets as part of their inherent power to supervise court proceedings and prevent injustice.) The Act is not binding law upon the states. Instead, it merely serves as a guide to those states who wish to draft their own statutes to protect trade secrets. If a state chooses to enact trade secret legislation, it may adopt the Act’s provisions in whole or in part. Furthermore, a state is free to make modifications to the adopted provisions. As of 2006, approximately forty-eight states and territories have adopted some form of the Uniform Trade Secrets Act. Under the UTSA, “improper means” includes theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means. In large part, “improper means” includes acts that are actionable in and of them—trespass, breach of contract, conversion of physical property, and, under modern laws, the misuse of computer networks. Trade secret misappropriation occurs where someone acquires, uses and/or discloses a trade secret without permission and in an improper manner. Typical examples include illegal acts such as theft, bribery, or obtaining protected information fraudulently or through illegal surveillance, or espionage by electronic or other means.

Industrial espionage is another common method to misappropriate a trade secret. The industrial espionage belongs to the external threats to trade secrets of an organization or company. External threats include corporate spying with professional criminals targeting specific technology, initiating network attacks (hacks), laptop computer thefts accessing source code, product designs, marketing plans, customer lists, approaching employees to reveal company information, etc. Intense competition in domestic and International markets had also lead to an alarming increase in theft by outsiders. Industrial espionage is increasing due to the global competition, shorter product cycles, thinning profit margins, and declining Employee loyalty.

The possibility that trade secrets are high value assets that may be used, sold or traded especially in technology led businesses has gradually brought many companies to take reserve of their trade secret identification and management policies, procedures and day-to-day practical measures and activities. Fierce competition in domestic and export markets has also led to an increase in industrial sabotage and espionage when trade secrets may also be lost easily if proper protection measures are not put in place to cover employees, partners, web sites and physical or electronic systems owned or used by a company. With increasing competition in markets and rising cost of R&D, loss of trade secrets is gathering bigger importance. In *Saunders v. Florence Enameling Company, Inc.*, 540 So. 2d 651 (Ala. 1981) is an excellent example. There, the employee left the employment of the pipe manufacturer and used the trade secret information in competition with his former employer. Of course, if the employee takes documents or things, the employee may be liable for conversion as well as for misappropriation of trade secrets. Another theory used against ex-employees is that they were disloyal and therefore breached a duty owed to their principal. There is an increasing recognition of the importance of trade secrets and trade secret protection in the Europe and across the world. It has been estimated that the majority of working technologies worldwide is protected as a trade secret rather than by patent. Also the globalization of the commerce requires even small companies to protect their trade secret on international basis. If the companies fail to protect their trade secret internationally, then during business in abroad or foreign countries they have to sacrifice competitive advantage. Various treaty and the agreements are enacted to protect the intellectual property on global basis that also protect the trade secret. Both the North American Free Trade Agreement (NAFTA) and the Agreement on Trade Related Aspects of Intellectual Property (TRIPs) ratified during the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) include specific provisions directed toward increasing the protection of trade secrets. There are no comprehensive international treaties pertaining to the trade secret. NAFTA and TRIPs provide only brief attention to the topic. Furthermore, in the past ten to fifteen years, there has been a trend toward the adoption of domestic statutes specifically directed at the increased protection of trade secrets, particularly among Asian nations. There is a little difference in the protection provided by the various international treaty and agreements. Depending on the legal system, the protection of the trade secret is base upon the case law on the protection of confidential information or on specific provisions enacted in the different countries. The protection of the trade secret is slightly different under various nations but the aim and nature of protection is same. There is no law on the trade secret protection,

which provides them protection in all countries at once. So for the trade secret protection, the individual countries are doing well and there was a noticeable movement towards increased protection of trade secret in many countries of the world. There is found a surprising uniformity in the treatment of trade secret.

TRADE SECRET LAWS IN DIFFERENT COUNTRIES

Serial no	Country	Trade Secret Law
1.	United State of America	Uniform Trade Secret Act, The UTSA allows the recovery of the plaintiff's actual losses and the amount by which the defendant has unjustly benefited from the misappropriation
2.	Brazil	Brazil revamped its intellectual property laws in 1996. Trade secrets are protected under the statute of "unfair competition" in Brazil
3.	Italy	Italy also provides strong protection for the trade secrets. The trade secret theft is a crime in Italy ⁴¹ . The full panoply of the trade secret misappropriation are available
4.	Poland	The provision of the unfair competition Law of April 16, 1993 ⁴⁵ as amended cover disclosure, unfair acquisition, and unfair use of trade secrets. The law provides injunction and other available remedies for the infringement of trade secret, along with this damages and monetary relief
5.	France	France also provides protection for the industrial and commercial secrets. France law recognizes three types of the trade secrets: Manufacturing secret. French law provides for the penal sanctions against the theft or misappropriation of the manufacturing trade secrets. Companies that are victims of manufacturing trade secret theft may also file complaint before the civil courts.
6.	United Kingdom	The UK provides broad and effective protection for the trade secret. There exists the full panoply of the remedies for "a <i>breach of confidence</i> " including the injunctive relief, damages and the third party liability.
7.	China	Article 10 of the Anti-Unfair Competition Law, prohibits business operations from engaging in any of the following acts: Obtaining the trade secrets of any rightful party by theft, inducement, duress, or other illegal means

PHILOSOPHICAL JUSTIFICATION OF TRADE SECRETS

Labour value theory

This theory is often called a "Lockean" theory after John Locke and his theory of property. Locke posited that one who improves the land with his or her labor should be entitled to ownership of that land. Under this theory, even information that is not secret could still be property. This theory is the implicit basis for any business owner's consideration of trade secrets as valuable property. The value of the trade secret is not its novelty (like a patent) or its originality (like a copyright) but rather its secrecy. It follows that the labor used to discover or assemble such information may "belong" to the originator if that information is not generally known. Thus, under this Lockean view, we would not necessarily expect trade secret rights to be lost upon inadvertent or wrongful disclosure. Finally, the strong form of Coase theorem assumes that transaction costs are zero, but in the real world, transaction costs are common and often high, especially with respect to licenses of secret information.¹⁵⁶ As a result, the right should initially be vested in the person whereby value and transaction costs are optimized. It is true that the theory as applied to trade secrets is insufficient to justify any particular bundle of rights, but the protection of secrets in general is certainly supported, as is the notion that others can independently develop the same information.

Original position theory

Contractarian theories relate to hypothetical bargaining of a set of rules by hypothetical individuals who have an interest in the outcome. The result of such bargaining is theoretically normatively justified by ex ante agreements to be bound by a set of rules. John Rawls popularized one such contractarian theory called the “veil of ignorance. Rawls suggests that those forming a society under the veil of ignorance would implement the “maximin” principle— namely selecting a distribution of wealth that maximizes the wealth of the person with the least. Professor Bone criticizes contractarian theories in general on the grounds that “real world” companies would protest following the agreements made during hypothetical negotiations by those who do not share their “real world” preferences. This leads to a more specific criticism of the veil of ignorance in particular—there is no reason to believe that any particular distribution of rights associated with trade secrets would be the outcome. One might be able to consider the balancing those in the original position might have considered given the current set of rules. This may be sufficient for justifying the existence of trade secret law.

POLICIES TO PREVENT TRADE SECRET

The business should implement certain procedure to maintain the secrecy of their important information. Because of intangible nature of trade secret, the extent of the property defined therein is defined by the extent to which the owner of the secret protects his interest from disclosure to others. The owner must take reasonable steps to protect trade secrets. The various steps that can be taken by the owner to keep their information secret, some of them are given below. A non-disclosure agreement (NDA), also known as a confidentiality agreement, confidential disclosure agreement (CDA), proprietary information agreement (PIA), or secrecy agreement, is a legal contract between at least two parties that outlines confidential materials or knowledge the parties wish to share with one another for certain purposes, but wish to restrict access to. It is a contract through which the parties agree not to disclose information covered by the agreement. An NDA creates a confidential relationship between the parties to protect any type of confidential and proprietary information or a trade secret.

The most important thing to emphasize to clients is that they must institute a policy to protect their trade secrets. Examples of steps which could be used to protect trade secrets may include the following:

1. Employee confidentiality agreements which
 - Are signed by every employee (usually a part of the orientation process),
 - Include a general definition of what is proprietary information and a catch-all definition,
 - Include a promise to return to the company upon termination all written or tangible material embodying confidential information, (
 - Include a promise not to undertake during a term of employment a consulting or moonlighting position in a competitor's business,
 - Include a representation that the employee is not subject to any other obligations,
 - Include an agreement by the employee to assign to the employer all ideas or inventions developed during his employment, and
 - Include the employee's consent to injunctive relief;
2. Agreements with contractors or temporary employees for confidentiality;
3. Non-disclosure agreements by any other parties such as vendors, customers, or potential business partners or purchasers;
4. Control of physical access to the facility, including requiring identification badges, limiting access to sensitive rooms, requiring all visitors to sign in, locking important documents or rooms, using monitoring cameras, marking documents as confidential or secret, and conducting exit interviews. Further, employers should consider special bins for confidential trash, requiring a clean desk policy, and not locating copying machines in close proximity to public areas

Burden to proof is on the owner of trade secret

To establish **violation of trade secret rights**, the owner of a trade secret must be able to show that:

1. Infringement by or competitive advantage gained by the person/company, which has misappropriated

- the trade secret.
2. The owner had taken all reasonable steps to maintain it as a trade secret.
 3. There is misuse as information obtained has been used or disclosed in violation of honest commercial practices.

Remedies against trade secrets violations

A court order to stop the person from further illegal acts (injunction)

1. A court order for getting monetary compensation (damages, lost profits, unjust enrichment, etc.)
2. Seizure order (to check defendant's premises, to take evidence, etc.)
3. Precautionary confiscation/seizure of articles that include misused trade secrets, or products resulting from its use or misuse

CONCLUSION

In the new economy, in the Information Age, and in the international arena of global competition, the protection of trade secret assets is now paramount. As more companies look to capitalize on the benefits of expansion to global markets, trade secret theft in global supply chains will continue to grow—in scope, frequency, complexity, and magnitude. To preserve their economic competitiveness, companies whose supply chains extend to countries with weak or no trade secret protection must take proactive measures to safeguard their most valuable trade secrets. Trade secret protection is now longer a national legal issue. It is now become an international issue with a great demand for the protection of trade secret. The transnational trade and investment scenario has created for the new legal development of the protection of industrial and business secret information. The international agreement like TRIPS and NAFTA are also minimal legal standard for trade secret protection, leaving behind the rooms for the national legislation of the member countries. EU has not address the protection of trade secret directly. The theoretical approach from where the trade secret protection arises, create various difference in the national law. Therefore there is still need to think over the harmonization of the trade secret protection. There is need to legislate a common framework to protect the trade secret across the world.

REFERENCES

Barton, William. (1939) A Study in the Law of Trade Secrets, 13 u. cin. l. rev. 507, 507

Berkowitz, Leslie. (2004). Computer Security and Privacy: The Third Wave of Property Law, COLO. LAW, at 57, 59.

Bone, Robert. (1998). A New Look at Trade Secret Law: Doctrine in Search of Justification, 86 CAL. L. REV. 241, 245.

Bruce, Atkins. (1996). "Trading secrets in the information age: can trade secret act survive the Internet?" 96 U. ILL. L. REV. 1151, n.6.

Carroll, Michael. (2006). One For All: The Problem of Uniformity Cost in Intellectual Property Law, 55 AM. U. L. REV. 845, 863 n.67

Casagrande, Thomas. (2002). "Permanent Injunctions in Trade Secret Actions, 28 AIPLA Q.J. 113, 139

Crescenzi, Anthony. (2006) State Sponsored Crime: The Futility of the Economic Espionage Act, 28 Hous. J. Intl. 389, 432

David, Poppick. (2005). "When Trade Secrets are sent by the computers: Federal Law Offers another Weapon to Companies Seeking Protection" The Connecticut Law Tribune, Vol. 34, No. 43

- Graves, Charles. (2007). "Do Strict Trade Secret and Non Competition Laws Obstruct Innovation?," 1 *Entrepreneur. Bus. L.J.* 323, 337
- Gullotti, Susan. (2004) Presenting the Trade Secret Owner's Case, in protecting trade secrets, at 145, *California law Review*, 160–61.
- Hutter, Michael. (1978). Trade secret misappropriation: a lawyer's practical approach to the case law. *Western New England law review*, 1
- James, Hill. (1999). "Trade secrets, Unjust enrichment, and the classification of the obligations", *Virginia journal of law and technology*, 4 VA. J.L. & TECH. 2.
- Jamieson, Kirk. (2006). Just Deserts: A Model to Harmonize Trade Secret Injunctions," 72 *Neb. L. Rev.* 515, 536
537 (1993)
- Kitch, Edmund. (1980), The Law and Economics of Rights in Valuable Information, 9 *J. LEGAL STUD.* 683, 698.
- Linda B. Samuels & Bryan K. Johnson, (2009). "The Uniform Trade Secrets Act: the states response" 24 *CREIGHTON L. REV.* 49, 52.
- Marcuse, John. (1962) The Protection of Trade Secrets: Theory and Practice, 36 *CONN. B. J.* 348, 351.
- Marina, Lao. (1998). Federalizing Trade Secrets Law in an Information Society, 59 *OHIO ST. L.J.* 1633, 1635.
- Mossinghoff, Gerald. (1997). The Economic Espionage Act: A New Federal Regime of Trade Secret Protection, 79 *J. PAT. & TRADEMARK OFF. SOC'Y* 191, 202.
- Noel J. Byrne, (1993). Changing View of Intellectual Property and Competition Law in the European Community and the United States of America, 20 *BROOK. J. INT'L L.* 1, 8
- Pace, Rebel. (1995). The Case for A Federal Trade Secrets Act, 8 *Harv. J. Law & Tech.* 427, 442.
- Rowe, Elizabeth, (2007). Saving Trade Secret Disclosures on the Internet through Sequential Preservation, 42 *Wake Forest Law Review* 1, 3–4
- Rustad, Michael. (2006). The Negligent Enablement of Trade Secret Misappropriation, 22 *Santa Clara computer & high tech. Law Journal* 455, 463
- Samuelson, Pamela. (2002). The Law and Economics of Reverse Engineering, 111 *Yale Law Journals.* 1575.
- Schiller, Arthur.(1930). Trade Secrets and the Roman Law: The Action Service Corruption, 30 *Columbia Law Review.* 837, 837–38
- Simpson, Michael. (2005).The Future of Innovation: Trade Secrets, Property Rights, and Protectionism—An Age-Old Tale, 70 *BROOK. L. REV.* 1121, 1121–22
- Stevens, K, Linda. (2008).The CFAA: New Remedies for Employee Computer Abuse, 96 *ILL. B.J.* 144, 144–45

RESUME REVIEWS, INTERVIEW CONDITIONS, AND ACCEPTANCE DECISIONS: AN EXPERIMENTAL STUDY IN THE HOTEL INDUSTRY

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ABSTRACT

The present study examines effects of recruiters' pre-interview inferences about applicant abilities drawn from entry-level resumes and consequent hiring recommendation on their post-interview acceptance decisions in a laboratory setting of selection. It also looks at the moderating effect of the applicant gender and their use of impression management (IM) tactics during interviews. Data from 229 responses by undergraduate students majoring in hospitality management in Taipei indicate that resume-based cognitive abilities (CAs), rather than resume-based interpersonal abilities (IAs), resume-based job-related knowledge (JRK), and hiring recommendations, was positively related to applicants' chance of acceptance after the interview. Furthermore, the effect of IAs on the chance of acceptance was stronger for female applicants in the interview than their male counterparts. The effect of CAs on the chance of acceptance was also stronger when applicants used excuse than justification as defending tactics during interviews.

INTRODUCTION

We incorporate primary dimensions of applicant IM condition in the interview, that is, applicant gender, proactive behaviors and reactive behaviors, as moderators in our hypotheses and compare simultaneously their moderating effect with corresponding inferred abilities on the probabilities of acceptance. We adopt well-categorized verbal IM typologies (Kacmar et al., 1992; Stevens & Kristof, 1995; Tedeschi & Melburg, 1984) that consist of both applicant assertive IM tactics and defensive IM tactics with the interviewer, to design interview conditions that reflect applicants' strategic considerations on their choice of image-manipulating behavior, so that the moderating role of each dimension of IM conditions would be compared.

HYPOTHESES

H1: For hotel entry-level employment, resume-based CAs and hiring recommendations have a stronger positive relationship with the probability of acceptance after the interview than resume-based IAs and resume-based JRK.

H2: For hotel entry-level employment, the relationship between resume-based IAs and the probability of acceptance after the interview is stronger in the female applicant condition than in the male applicant condition.

H3: For hotel entry-level employment, the relationship between resume-based JRK and the probability of acceptance after the interview is stronger in the SFIM condition than in the OFIM condition.

H4: For hotel entry-level employment, the relationship between resume-based CAs and the probability of acceptance after the interview is stronger in the excuse condition than in the justification condition.

METHOD

Procedure

We employed three confounding variables of the IM conditions of an interview, that is, applicant gender, assertive IM tactics, and defensive IM tactics, to examine their moderating effects on the relationships between pre-interview judgments and the post-interview acceptance, in a between-subjects experimental design. Participants were randomly assigned to one of eight (2×2×2) IM conditions of an interview, that is, “SFIM tactics vs OFIM tactics” × “justification tactics vs excuse tactics” × “female vs male.” to assure the prior equality of the comparison groups that controlled extraneous factors. Data were collected from 229 voluntary students (mean age = 20.71 years old, 15.7% male, 84.3% female) majoring in hospitality management of a private university located in Taipei who received shopping coupon from the authors as an incentive to cooperate to finish the experimental process. All participants received the same documents across the experimental conditions except for the applicants’ photo and gender that help the subject to identify the actor of the videotaped interview in the condition, building them a more lifelike recruitment situation.

Measures

We asked participants to rate the applicants on a 5- point Likert’s scale (1 = poor, 5 = excellent) on: (1) IAs by three items (Cronbach’s alpha = .718) covering “attitude toward serving customers” (Bagri et al., 2010), “effective communication skills” (Bagri et al., 2010), and “keeping people informed (Ineson, et al., 2011); (2) CAs by two items (Cronbach’s alpha =.623) encompassing “responsive to criticism” (Ineson et al., 2011) and “problem solving skills” (Bagri et al., 2010; Ineson et al., 2011); and (3) JRK by two items (Cronbach’s alpha =.644) consisting of “critical awareness of current issues in business and management” (Ineson et al., 2011) and “job skills” (Bagri et al., 2010). Results of principle component analysis with Varimax rotation confirmed a three-factor structure of evaluation indicators as we maintained. The total variance explained by these items was 67.77%. All of the standardized factor loadings were positive and quite high (ranging from 0.64 to 0.89) on the intended dimensions, while the loadings on other factors were weak, thus simultaneously demonstrating convergent and discriminant validity. In addition, they judged whether or not the applicant was recommended for hiring on a dichotomous scale (0 = not recommended, 1 = recommended). Participants provided their post-interview acceptance decisions on a dichotomous scale (0 = not accepted, 1 = accepted).

RESULTS

Hierarchical Logistic Regression Analyses

Table 1 summarizes the results of a series of hierarchical logistic regression analyses conducted in order to test if subjects’ inferences about applicant abilities and consequent hiring recommendations explained their post-interview acceptance decisions and interacted with the IM conditions of the interview, as hypothesized. All predictors were factor-scored to avoid low variation that might lead to underestimations of their effect size and multicollinearity caused by the creation of the interaction term. In model 1, subjects’ male (vs female) gender and age, and the IM treatment categories which contained in the experimental conditions, including applicant male (vs female) gender, OFIM (vs SFIM) and justification (vs excuse); were controlled for in the logistic regression due to their possible confounding effects on recruiters’ acceptance decisions.

Table1. Results of logistic regression analyses predicting applicant chance of acceptance

Variables	Model 1		Model 2		Model 3	
	B	Exp(B)	B	Exp(B)	B	Exp(B)
Constant	3.297†	27.034	3.029	20.674	3.867†	47.816
Confounders						
<i>Subject demographics</i>						
Male (vs. female) gender	-.380	.684	-.408	.665	-.527	.590
Age	-.178†	.837	-.180†	.835	-.225*	.798

IM treatment categories in the mock-interview

Applicant male (vs. female) gender	.493†	1.638	.785**	2.193	.922**	2.515
OFIM (vs. SFIM)	-.277	.758	-.323	.724	-.354	.702
Justification (vs. excuse)	.159	1.172	.065	1.067	-.001	.999
Predictors (subject judgment based on resume)						
IAs			-.334†	.716	-.026	.975
CAs			.588**	1.801	.149	1.161
JRK			.180	1.197	.393†	1.482
Recommended (vs. not recommended) for hiring			.454	1.575	.443	1.558
Interactions						
IAs \times interviewee male (vs. female) gender					-.619*	.538
JRK \times OFIM (vs. SFIM)					-.427	.653
CAs \times justification (vs. excuse)					.833*	2.301
Δ -2LL from base model	8.522		25.299**		39.056***	
Δ -2LL from prior step	8.522		16.778**		13.757**	
-2LL	297.345		280.567		266.810	
Cox & Snell R^2	.037		.107		.161	
Nagelkerke R^2	.050		.144		.215	
Hosmer & Lemeshow χ^2	9.599 ($p = .294$)		2.649 ($p = .954$)		3.123 ($p = .926$)	
Overall hit ratio (%)	59.6		64.6		67.3	

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed tests)

In model 2, to test H1, which concerns a comparison of the main effects of subjects' judgments based on resume information, we added the four independent variables, that is, IAs, CAs, JRK and hiring recommendations, to the logistic regression model. As shown in Table 1, model 2 was acceptable overall (Δ -2LL from base model = 25.299, $p < .01$; Δ -2LL from prior step = 16.778, $p < .01$; Hosmer & Lemeshow $\chi^2 = 2.649$, $p > .05$; overall hit ratio (64.6%) > chance level (50.7%)). To test H2, H3, and H4, which concern the interaction effects of IAs by applicant gender, JRK by assertive IM tactics, and CAs by defensive IM tactics, we included the three interaction terms, that is, interpersonal abilities \times applicant male (vs female) gender, JRK \times OFIM (vs SFIM), and CAs \times justification (vs excuse), in the same regression model (model 3), so that the effect of each interaction term was revealed simultaneously and compared with others accordingly. Results show that model 3 was acceptable overall (Δ -2LL from base model = 39.056, $p < .001$; Δ -2LL from prior step = 13.757, $p < .01$; Hosmer & Lemeshow $\chi^2 = 3.123$, $p > .05$; overall hit ratio (67.3%) > chance level (50.7%)). Moreover, intercorrelations for confounders, predictors, and interaction terms included in analyses indicate that there was no correlation greater than $\pm .90$ (maximum coefficient of correlation = -.663 for JRK and JRK \times OFIM (vs SFIM)), suggesting that our interpretation of the logistic coefficients should not be affected adversely by multicollinearity.

The Main Effects of Judgments Based on Resume

Table 1 (see model 2) shows that of the four predicting terms for the subjects' acceptance decisions, only the term of CAs was positive and significant (exp (B) = 1.801, 95% CI [1.26, 2.57], $p < .001$), whereas the term of IAs was negative and marginally significant (exp (B) = .716, 95% CI [.50, 1.02], $p < .1$). The main effect of hiring recommendations was positive (but non-significant) as we expected (exp (B) = 1.575, 95% CI [.84, 2.97],

n.s.), while the main effect of JRK was not supported. Our statistic estimates indicated that CAs is 2.515 times (1.801/.716) as important as IAs in determining applicants' chance of acceptance. In sum, CAs appeared more effective than other predictors in the light of leading to the odds of becoming accepted. These results provide partial support for H1, which states that CAs and hiring recommendations have a stronger positive effect than JRK and IAs on applicants' chance of acceptance.

The Moderating Effects of IM Conditions of the Mock-Interview

The results of model 3 shown in Table 1 indicate that IAs \times applicant male (vs female) gender was negative and significant (exp (B) = .538, 95% CI [.29, .99], $p < .05$), providing support for H2 stating that the relationship between IAs and the probability of becoming accepted is stronger in the female applicant condition than in the male applicant condition. However, JRK \times OFIM (vs SFIM) was negative (but non-significant) as stated in H3 (exp (B) = .653, 95% CI [.36, 1.20], n.s.). To graphically picture the significant interaction, we examined separate simple slopes depicting the relationship between IAs and predicted probability of becoming accepted across groups defined by applicant gender based on the logistic regression outputs. As shown in Figure 1, the female applicant group's slope representing the relationship between IAs and the predicted probability of becoming accepted was positive and steeper than the male applicant group's, providing evidence that females rather than males as applicants have a higher probability of being accepted when they are perceived high in IAs by recruiters.

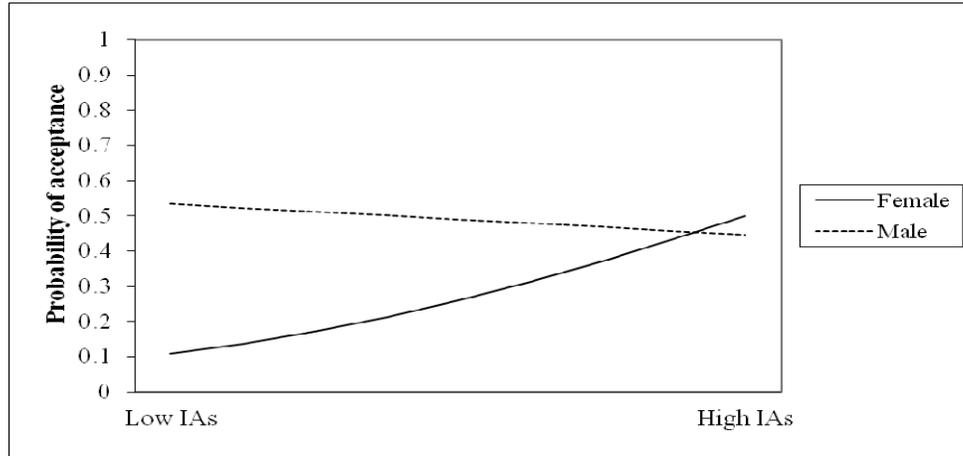


Figure 1. The moderating effect of applicant gender on the relationship between applicant IAs and the predicted probability of acceptance

Consistent with H4 arguing that the relationship between CAs and the probability of becoming accepted is stronger in the excuse condition than in the justification condition, Table 1 reported that CAs \times justification (vs excuse) was positive and significant (exp (B) = 2.301, 95% CI [1.26, 4.21], $p < .01$). Likewise, as depicted in Figure 2, the slope representing the relationship between CAs and the predicted probability of being accepted was negative for the group of excuse condition, whereas it was positive for the group of justification condition, suggesting that applicants who applied excuse tactics rather than justification tactics in the interviews have a higher probability of being accepted when they are perceived low in CAs by recruiters. In sum, these figures are in line with the expected shape of the supported interactions.

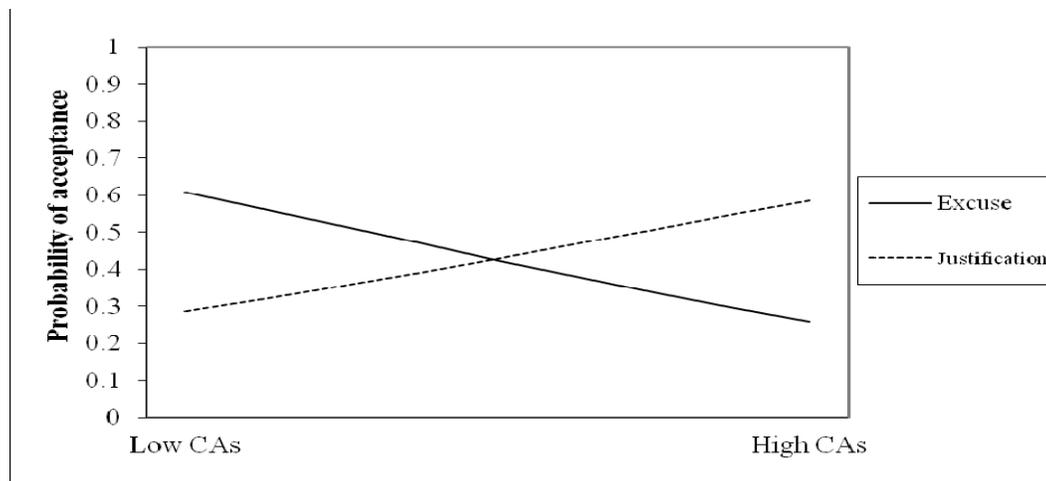


Figure 2. The moderating effect of defensive IM tactics on the relationship between applicant CAs and the predicted probability of acceptance

CONCLUSIONS

The current study makes three primary contributions of the literature on mechanisms of resume-based judgments and the roles that interview IM tactics play in the hospitality employment. First, the present study advances Dipboye and Macan's (1988) three-phased selection model and incorporates pre-interview judgments (that is, CAs, IAs, and JRK inferences drawn from entry-level resumes and consequent hiring recommendations), interview IM conditions (that is, applicant gender, assertive IM tactics, and defensive IM tactics), and post-interview decisions (that is, the probability of acceptance) into an integrated model for clarifying how hotel recruiters' acceptance decisions were influenced by factors of each phase of the selection process. By applying hierarchical logistic regression analyses, we have provided evidence of the assertion that inferred CAs have a stronger and positive effect on post-interview acceptance chance than inferred IAs and inferred JRK do. The findings echo past research that has shown attributes inferences drawn from academic qualifications are important in predicting recruiters' post-interview decisions, even after controlling for applicants' interview performance (Hazer & Jacobson, 2003). In addition, as recruiter-perceived CAs mediated the positive relationship between academic qualifications and recruiters' perceptions of applicant-job fit (Chen et al., 2011; Tsai et al., 2011), our finding add to previous research that argued the primary role of applicant-job fit in predicting hiring decisions (Cable & Judge, 1997; Kristof-Brown et al., 2002). Despite non-significant support, we found that recruiters' post-interview acceptance related positively decisions hiring recommendations based on resume review as speculated. Perhaps the discrepancy is attributable to dichotomous forms of hiring recommendations measured that might not vary as much as other factor-score predictors did and failed to demonstrate a significant effect on the probability of acceptance. Overall, our results consider both object credentials of resume and subjective credentials of interview (Hazer & Jaconson, 2003), suggesting reasons for why resume items should be distinguished from attributes inferences, and why applicants' behavioral patterns during interviews should be elaborated before we advance current insights into the complexity of employment practices of the hospitality industry, which have be criticized as intuitive and unprofessional (cf. Kusluvan et al., 2010).

REFERENCES

- Bagri, S.C., Babu, S., & Kukreti, M. (2010). Human resource practices in hotels: A study from the tourist state of Uttarakhand, India. *Journal of Human Resources in Hospitality & Tourism*, 9(3), 286-299.
- Cable, D.M., & Judge, T.A. (1997). Interviewers' perceptions of person-organization fit and organizational selection decisions. *Journal of Applied Psychology*, 82(4), 546-561.

- Chen, C.-C., Huang, Y.-M., & Lee, M.-I. (2011). Test of a model linking applicant resume information and hiring recommendations. *International Journal of Selection and Assessment*, 19(4), 374-387.
- Dipboye, R.L., & Macan, T.M. (1988). A process view of the selection/recruitment interview. In Schuler, R.S., Youngblood, S.A., & Huber, V.L. (Eds.). *Readings in Personnel and Human Resource Management*, 3rd ed., pp.217-232, St. Paul, MN: West.
- Hazer, J.T., & Jacobson, J.R. (2003). Effects of screener self-monitoring on the relationships among applicant positive self-presentation, objective credentials and employability ratings. *Journal of Management*, 29(1), 119-138.
- Ineson, E.M., Rhoden, S., Niță, V., & Alexieva, I. (2011). Seeking excellent recruits for hotel management training: An intercultural comparative study. *Journal of Hospitality & Tourism Education*, 23(2), 5-13.
- Kacmar, K. M., Delery, J. E., & Ferris, G. R. (1992). Differential effectiveness of applicant management tactics on employment interview decision. *Journal of Applied Social Psychology*, 22(16), 1250-1272.
- Kristof-Brown, A., Barrick, M.R., & Franke, M. (2002). Applicant impression management: Dispositional influences and consequences for recruiter perceptions of fit and similarity. *Journal of Management*, 28(1), 27-46.
- Kusluvan, S., Kusluvan, Z., Iihan, I., & Buyruk, L. (2010). The human dimension: A review of human resources management issues in the tourism and hospitality industry. *Cornell Hospitality Quarterly*, 51(2), 171-214.
- Stevens, C.K., & Kristof, A.L. (1995). Making the right impression: A field study of applicant impression management during job interviews. *Journal of Applied Psychology*, 80(5), 587-606.
- Tedeschi, J.T., & Melburg, V. (1984). Impression management and influence in the organization. In S. B. Bacharach & E.J. Lawler (Eds.). *Research in the sociology of organizations* (Vol. 3, pp. 31-58). Greenwich, CT: JAI Press.
- Thoms, P., McMasters, R., Roberts, M.R., & Dombkowski, D.A., (1999). Resume characteristics as predictors of an invitation to interview. *Journal of Business and Psychology*, 13(3), 339-356.
- Tsai, W.-C., Chi, N.-W., Huang, T.-C., & Hsu, A.-J. (2011). The effects of applicant resume contents on recruiters' hiring recommendations: The mediating roles of recruiter fit perceptions. *Applied Psychology: An International Review*, 60(2), 231-254.

EXPOSURE TO EWOM AND CONSUMER BEHAVIOR: DOES GENDER MATTER?

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ABSTRACT

In the marketing literature, gender has been considered as having a great impact on consumer behavior. However this concept has remained insufficiently studied in the research on marketing theory and practice. The purpose of this study is to explore the specific role of gender while being exposed to an electronic word-of-mouth (eWOM) communication. To do so, a conceptual research will be led. This study is a preliminary work which aims at developing research proposals about the role of gender during an eWOM exposure. It would help to better understand how the consumer can behave in front of this specific type of communication.

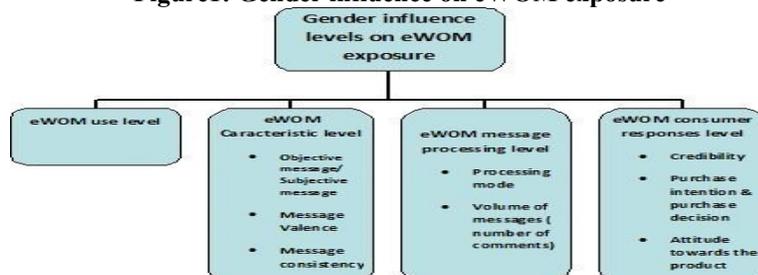
INTRODUCTION

During the decision making process, consumers tend to seek for information before making a decision. This information can be based on internal sources (such as previous experiences with the product or the brand) or external sources (such as public sources, marketer-dominated sources or personal sources). Personal sources are usually perceived by the consumer as one of the most credible sources (Kotler & Dubois, 2000). eWOM is considered by the marketing literature as a personal source that can strongly influence Internet users' opinions and their purchasing decisions (Cheung et al., 2009). eWOM can be defined as "a statement made by potential, actual or former customers about a product or company, which is made available to a multitude of people and institutions via the Internet" (Henning-Thurau et al., 2004). Marketers need to be aware of the impact of eWOM on their marketing efforts. As communication barriers continue to fall due mostly to the ongoing growth of the Internet implementation, effective use of eWOM communication will be of even greater importance in the future for local and foreign markets. E-WOM owes its growth to the new opportunities offered by the Web 2.0, and also to the ongoing enthusiasm of consumers for the user-generated content (UGC). Thanks to these new communication media, consumers have acquired the habit to give their opinions about products, services, companies and to describe their own shopping experiences via the Internet (Gupta & Harris, 2010). Due to the impact of eWOM communication on consumer behavior, professionals and academicians have become more interested in this concept. Several studies have been conducted to better understand this new form of communication in a consumer behavior context (Cheung & Thadani, 2012). However, despite the growing number of studies dealing with the influence of eWOM on consumer behavior, several aspects of this relationship remain not-yet-studied. Thus, in a meta-analysis about eWOM, Cheung and Thadani (2012) emphasized the importance of developing further research in the field of eWOM. They have also focused on the usefulness of studying the impact of gender on eWOM adoption as well as on the consumer's purchasing decisions after being exposed to an eWOM communication. In fact, although the degree of adoption and the use of Internet depend on the consumer's gender (Kim et al., 2007), research on the relationship between consumer behavior and online information according to the consumer's gender are rare and under-studied (Richard et al., 2010). In what follows, we will study the potential role of the gender variable in the relationship between consumer behavior and eWOM. More specifically, we will try to answer the following question: do women and men react differently to an eWOM exposure? To respond to this issue, we will focus on the different levels of influence of gender on the eWOM, namely on the use of eWOM, on its features, on its processing and on the consumer's different responses after being exposed to eWOM. We will finish our work with a discussion and a conclusion.

LEVELS OF GENDER INFLUENCE ON EWOM

On the basis of a literature review, we can distinguish four levels of gender influence on the eWOM: The way that the eWOM is used, its characteristics, the way of processing the message and the responses to the eWOM depending on the consumer's gender (see Figure 1). For each level of influence, research proposals about the role of gender in an eWOM context will be suggested.

Figure1: Gender influence on eWOM exposure



Gender and eWOM use

Gender appears to significantly influence the exposure to information, information research and the processing of information. Indeed, men and women do not perceive the same source of information in the same way and do not show the same motivation in using them. For instance, women usually use virtual communities in order to give and receive social support, whereas men tend to use virtual communities to improve and protect their own social status (Awad & Ragowsky, 2008). Similarly, a study has shown that men have more favorable beliefs and more favorable attitudes towards online advertising than women (Wolin & Korgaonkar, 2003). Kempf and Palan (2006) found out that women are likely to describe themselves as more receptive to traditional WOM than men. Similarly, it has been shown that friend's recommendation for a shopping website allowed women to have a greater reduction of perceived risk and a stronger online shopping intention (Garbarino & Strahilevitz, 2004). More particularly, it seems that gender can affect the use and the recognition of the eWOM (Gefen & Ridings, 2005).

Proposition 1: *Women are more receptive to eWOM than men.*

Proposition 2: *Women are more favorable to the use of eWOM than men.*

Gender and eWOM characteristics

EWOM can be categorized according to different characteristics that can influence in a different way the message receiver (Cheung & Thadani, 2012).

Objective versus subjective message : Chatterjee (2001) indicates that the eWOM messages may be labeled in two different types: Objective messages and subjective messages. In the same way, Park and Kim (2008) distinguish between two types of reviews: attribute-centric and benefit-centric reviews. In the case of the attribute-centric review, the arguments that support the reviewer's evaluation are essentially based on technical description and objective data. Whereas, in the case of the benefit-centric review, the arguments that support the reviewer's comments are rather subjective and is liable to personal interpretations. More generally, several marketing studies have shown that men and women are inclined to respond differently to objective and subjective messages (Darley & Smith, 1995). Early research that had examined the impact of gender on information processing had often described men as being more analytical and rational in their processing, while women were described as more intuitive and subjective (Broverman et al., 1968). It was also found out that men have a propensity to conceptualize the items based on physical attributes, whereas women are more likely to use emotional and evaluative concepts (Poole, 1977). Finally, it has been assumed that men are prone to respond more favorably to messages and goals while women are likely to respond more favorably to subjective messages.

The works of Meyers-Levy call into question these early theories (Meyers-Levy, 1994). In fact, Meyers-Levy, argues that women have the tendency to consider information in a broader manner. They do not only consider the objective attributes but they are also interested in non observable information and subjective considerations that might help them to better explain and understand the evaluated subject. In contrast, men are likely to focus on the objective attributes in particular those that are salient and readily available. Thus, the selectivity model suggests that men are more receptive to objective messages, while women are more likely to process messages more extensively; and therefore they tend to regard both objective and subjective messages, equally.

Proposition 3: *Men tend to expose themselves to objective eWOM messages.*

Proposition 4: *Men tend to be sensitive to objective eWOM messages.*

Proposition 5: *Women tend to expose themselves to both objective and subjective eWOM messages.*

Proposition 6: *Women tend to be sensitive to both objective and subjective eWOM messages.*

Valence of eWOM messages: The valence of the eWOM message is a concept that has received considerable attention by researchers. A positive valence eWOM focuses on the strengths or on the benefits of the product while a negative valence eWOM focuses on the product weaknesses or on the problems related to the product (Grewal et al., 1994). Several previous studies had shown that a negative valence message would have a greater influence than a positive valence message (Kanouse, 1984). This could be partly explained by the fact that a negative message reduces the probability that the information is posted by the company or someone who wants to promote the product. This could also be explained by the fact that individuals have the tendency to avoid taking risk. trusting the negative eWOM message can, in fact, help consumers avoid making a bad purchase decision (Cheung et al., 2009). The impact of eWOM valence seems to be also moderated by gender. Indeed, the effect of negativity stating that consumers are more influenced by negative rather than by positive comments seems to be more evident for women than for men (Bae & Lee, 2011).

Proposition 7: *Women are more sensitive to the eWOM valence than men.*

eWOM consistency : In general, it appears that higher level of incongruity and inconsistency drives individuals to greater attention and more developed information processing (Houston et al., 1987). Meyers-Levy and Sternthal (1991) showed that when the cue incongruity is low, these messages do not attract people's attention (whether they are males or females). In this particular case, the receivers will not engage in extensive message cue elaboration. However, when the incongruity of messages is sufficiently high, they are, therefore more likely to attract women's attention. In this particular case, women are somewhat expected to engage in a more extensive message elaboration than men. The concept of consistency is also discussed in the research related to eWOM. Zhang and Watts (2003) defined the recommendation consistency as the degree to which the eWOM message is consistent with other contributors' experience about the same product. The eWOM consistency also seems to have an impact on the receiver. Indeed, in a study on the forums, Cheung et al. (2009) showed that when the comment is consistent with other comments, it is generally perceived by the reader as consistent and credible. According to past studies about the perception of eWOM consistency among men and women, we can assume that:

Proposition 8: *When the level of eWOM inconsistency is very high in comparison to other eWOM messages, the attention paid to this post is greater for women than for men.*

Proposition 9: *When the level of the eWOM inconsistency is very high in comparison to other posts, women are more likely to engage in a developed and extensive evaluation process than men.*

Gender and eWOM message processing

Marketing communication literature put forward that the gender variable may moderate stimuli processing (Putrevu, 2004). This proposal can be verified during an eWOM communication exposure insofar as the gender seems to influence the processing mode of the eWOM (elaborated vs. heuristic) message. This processing may depend among others on the messages volume to which the consumers are exposed.

eWOM Processing mode: A study conducted by Pogun (2001) shows that the cognitive and behavioral skills vary depending on the gender. More particularly, research tend to support the idea that the information processing depends on the individual gender (Duff & Hampson, 2001). Indeed, the work of Meyers-Levy and Sternthal (1991) found differences at the cognitive elaboration level whether the receiver is a male or a female. In fact, women seem to have a lower elaboration threshold as they are easily engaged in more detailed processing than men, whereas men prefer to limit their cognitive effort. Therefore, they tend to use a heuristic processing. Indeed, according to the selectivity model, women process all the available information and consider both subjective and objective product attributes. So, Women usually respond to “subtle cues”. On the counterpart, men process information with selectivity and tend to perform heuristic processing (Darley & Smith, 1995). The information conveyed by the eWOM message can also be considered as a basis during the purchase process. Therefore, consumers exposed to this type of communication will be engaged in processing of this eWOM message information. Thus, we can assume that:

***Proposition 10:** Women exposed to information based on eWOM tend to engage in an elaborated information processing.*

***Proposition 11:** Towards information based on eWOM, men will tend to engage in heuristic processing rather than elaborated processing.*

Volume of messages: Todorov et al. (2002), argue that during systematic and elaborated information processing, individuals take into account all the relevant pieces of information. However, if individuals have enough cognitive resources, they can engage in heuristic processing. For this reason, the receivers take into consideration less information. As suggested by the selectivity model, men tend to use a heuristic processing mode and therefore, they do not require a large amount of information, while women engage in a more systematic processing based on a wide range of information. Then, while exposed to communication, females need a large volume of information to perform their elaborated message processing (Kim et al., 2007). In the literature dealing with eWOM, the volume of information is represented by the number of posted comments. Based on these theoretical suggestions, we can argue that:

***Proposition 12:** Women tend to make a more elaborated eWOM processing; therefore they will be more favorable to a higher volume of online comments than men.*

Gender and eWOM consumer responses

After an eWOM exposure, consumers can have several types of responses. We will try in what follows to highlight the potential role of the gender variable on some of these responses.

Credibility: The eWOM influence on purchase intention could be more important when the eWOM is perceived as credible. In fact, when the perceived credibility of the eWOM is high, it could affect the consumers' perceptions and attitudes. More precisely, the perceived credibility seems to have an impact on the acceptance of the eWOM (Fan & Miao, 2012). Moreover, the eWOM perceived credibility seems to have a greater effect on the acceptance of the eWOM by women than by men (Fan & Miao, 2012). As a consequence, we may make the assumption that:

***Proposition 13:** Greater eWOM perceived credibility leads to a greater acceptance of the eWOM by women than by men.*

Purchase intention and purchase decision: Bae and Lee (2011) have tried to determine whether gender differences influence the consumer's response to the online comments. Their findings revealed that the impact of the online reviews on the purchase intention were more important for women than for men. The online comments are considered as a form of eWOM, so, it is possible to put forward the following suggestion:

***Proposition 14:** The eWOM effect on the purchase intention is more important among women than among men.*

More precisely, the purchase intention expressed after an exposure to eWOM could also be influenced by the perceived credibility towards this eWOM. The eWOM perceived credibility seems to be greater among women than among men (Fan & Miao, 2012). Hence, it would be possible to suggest the following proposition:

Proposition 15: *Greater eWOM credibility will have more effect on purchase intention among women than among men.*

According to the study of Bae and Lee (2011), purchase intention seems to be influenced by the message valence. Indeed, the authors suggest that positive comments have higher impact on women's purchase intentions than on men's. Also, Bae & Lee's study reveals that the purchase intention of women who were exposed to negative comments was lower than those of men. The discrepancy between the decrease of the purchase intention after reading negative comments and the increase in purchase intention after reading positive reviews is greater and more important for women than for men.

Proposition 16: *The eWOM message valence has a greater impact on the purchase intention of women than of men.*

Finally, previous academic studies have mainly used the purchase intention as a proxy for the final purchase act. The individual intention is often an accurate predictor of its behavior (Ajzen, 1991). Purchase intention seems to be influenced by the gender differences during an eWOM exposure (Bae & Lee, 2011). Based on these theoretical arguments, we may assume that:

Proposition 17: *Women are more influenced than men by exposure to an electronic WOM when making online purchase decisions.*

Attitude towards the product: Sen and Lerman (2007) have studied the effects of eWOM on the consumer attitudes. Their findings show that the online comments significantly affect the receiver's attitude towards the recommended product. Fishbein and Ajzen (1975) have found out that the attitude towards the product has a positive effect on the purchase intention. The literature related to the eWOM highlights the existence of a significant relationship between the attitude towards the recommended product and the consumer's purchase intention (Cheung & Thadani, 2012). Given the confirmed role of the attitude towards the product as a predictor of purchase intention, and according to the influence of the gender differences on this consumer's response (Bae & Lee, 2011) (women have greater purchase intention than men after eWOM exposure), we can suppose that the same gender differences can influence the attitude towards the product, and we can claim that:

Proposition 18: *The eWOM effect on the attitude towards the product is higher among women than among men.*

DISCUSSION AND CONCLUSION

This research fits within the framework of better understanding one of the most popular forms of information dissemination on the Internet which is the eWOM (Kim et al., 2001). The main purpose of this work was to highlight the potential role of gender in the consumer's evaluations as well as the consumer's responses during and after an eWOM exposure. Through a literature review, the gender influence was analyzed on four levels: eWOM use, eWOM characteristics, eWOM evaluation (or processing mode) and consumer's responses to eWOM. Several research proposals have been identified thanks to this theoretical analysis. From a theoretical perspective, this research can provide a significant contribution to eWOM studies. Indeed, to our knowledge, there are few studies conducted in the virtual context dealing with the influential (or moderating) role of gender on the relationship between the consumer's behavior and their exposure to eWOM. From a managerial perspective, the understanding of the role of gender in the use, the evaluation and the consumers' responses towards an eWOM could firstly help managers to better use the eWOM communication (especially in the targeting strategy which could be more relevant). Secondly, the content relevance as well as the presentation of an eWOM message seem to affect the understanding and the message processing, which depend on the receiver's gender (Darley & Smith, 1995). It is interesting for companies that operate exclusively online or for

those that have a website to set up a demographic recommendation system. It is a system based on the use of demographic data (including gender) to recommend the suitable product according to the customer's gender. Finally, eWOM can also increase the awareness and the attractiveness of the company's products among potential consumers in foreign markets. Therefore, eWOM is considered to be a very useful tool, especially for international marketers who have been enabled to compare consumer's behaviors from a range of target markets. In order to compete successfully in today's global online markets, a cross-national analysis for market segmentation has become a more important issue. In this case Gender could be a good cross-national segmentation criterion especially for marketers who are planning a global campaign. Some limitations should be mentioned, as well. Other study levels of the effect of gender during an eWOM communication exposure have not been taken into consideration in our research. In fact, there are some moderating variables that may influence the gender effect such as the nature of the recommended product or the degree of the receiver's involvement (Dubé & Morgan, 1996). Future studies could therefore broaden this theoretical analysis according to a specific recommended type of product for example. To conclude, this literature review provides an overview of the current state of knowledge in the eWOM communication research field from a gender differences perspective. This topic remains insufficiently investigated. The study could stimulate future research on this communication mode by drawing attention on variables and moderating links which need further exploration.

REFERENCES

- Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior Human Decision Processes*, 50(2), 179-211.
- Awad, N. F., & Ragowsky, A. (2008). Establishing Trust in Electronic Commerce Through Online Word of Mouth: An Examination Across Genders. *Journal of Management Information Systems*, 24(4), 101-121.
- Bae, S., & Lee, T. (2011). Gender differences in consumers' perception of online consumer reviews. *Electronic Commerce Research* 11(2), 201-214.
- Broverman, D. M., Klaiber, E. L., Kohayashi, Y., & Vogel, W. (1968). Roles of Activation and Inhibition in Sex Differences in Cognitive Abilities. *Psychological Review*, 75 (January), 23-50.
- Chatterjee, P. (2001). *Online reviews: Do consumers use them?* Paper presented at the Advances in Consumer Research.
- Cheung, C. M. K., Luo, C., Sia, C. L., & Chen, H. (2009). Credibility of Electronic Word-of-Mouth: Informational and Normative Determinants of On-line Consumer Recommendations. *International Journal of Electronic Commerce*, 13, 9-38.
- Cheung, C. M. K., & Thadani, D. R. (2012). The impact of electronic word-of-mouth communication: A literature analysis and integrative model. *Decision Support Systems*, 54(1), 461-470.
- Darley, W. K., & Smith, R. E. (1995). Gender Differences in Information Processing Strategies: An Empirical Test of the Selectivity Model in Advertising Response. *Journal of Advertising*, 24(1), 41-56.
- Dubé, L., & Morgan, M. S. (1996). Trend Effects and Gender Differences in Retrospective Judgments of Consumption Emotions. *Journal of Consumer Research*, 23(2), 156-162.
- Duff, S. J., & Hampson, E. (2001). A sex difference on a novel spatial working memory task in humans. *Brain and Cognition*, 47, 470-493.
- Fan, Y.-W., & Miao, Y.-F. (2012). Effect of electronic word-of-mouth on consumer purchase intention: the perspective of gender differences. *International Journal of Electronic Business Management*, 10(3), 175-181.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: an introduction to theory and research*. Addison-Wesley Pub. Co.

- Garbarino, E., & Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, 57(7), 768-775.
- Gefen, D., & Ridings, C. A. (2005). If you spoke as she does, sir, instead of the way you do: A sociolinguistic perspective of gender differences in virtual communities. *The DATA BASE for Advances in Information Systems*, 36(2), 78-92.
- Grewal, D., Gottlieb, J., & Marmorstein, H. (1994). The Moderating Effects of Message Framing and Source Credibility on the Price-perceived Risk Relationship. *Journal of Consumer Research*, 21(1), 145-153.
- Gupta, P., & Harris, J. (2010). How e-WOM recommendations influence product consideration and quality of choice: A motivation to process information perspective. *Journal of Business Research*, 63(9/10), 1041-1049.
- Henning-Thurau, T. F., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic Word-Of-Mouth Via Consumer-Opinion Platforms : What Motivates Consumers To Articulate Themselves On The Internet? *Journal of Interactive Marketing*, 18, 38-52.
- Houston, M., Childers, T. L., & Heckler, S. E. (1987). Picture-Word Consistency and the Elaborative Processing of Advertisements. *Journal of Marketing Research* 24(4), 359-362.
- Kanouse, D. E. (1984). *Explaining negativity biases in evaluation and choice behavior: theory and research* Paper presented at the Advances in Consumer Research.
- Kempf, D. S., & Palan, K. M. (2006). The effects of gender and argument strength on the processing of word-of-mouth communication *Academy of marketing studies journal*, 10(1), 1-18.
- Kim, D.-Y., Lehto, X. Y., & Morrison, A. M. (2007). Gender differences in online travel information search: Implications for marketing communications on the internet. *Tourism Management*, 28, 423-433.
- Kim, W. G., Han, J., & Lee, E. (2001). Effects of Relationship Marketing on Repeat Purchase and Word of Mouth. *Journal of Hospitality and Tourism Research*, 25(3), 272-288.
- Kotler, F., & Dubois, B. (2000). *Marketing Management. 10 ème édition*: Publi-Union.
- Meyers-Levy, J. (1994). Gender Differences in Cortical Organization: Social and Biochemical Antecedents and Advertising Consequences. In E. Clarke, T. Brock & D. Stewart (Eds.), *Attention, Attitude, and Affect in Response to Advertising* (pp. 107-122). Hilldale: Lawrence Erlbaum Associates.
- Meyers-Levy, J., & Sternthal, B. (1991). Gender Differences in the Use of Message Cues and Judgments. *Journal of Marketing Research* 28(1), 84-96.
- Park, D.-H., & Kim, S. (2008). The effects of consumer knowledge on message processing of electronic word-of-mouth via online consumer reviews. *Electronic Commerce Research & Applications*, 7, 399-410.
- Pogun, S. (2001). Sex differences in brain and behavior: Emphasis on nicotine, nitric oxide and place learning. Personality and individual differences. *International Journal of Psychophysiology*, 42, 195-208.
- Poole, M. E. (1977). Social Class—Sex Contrasts in Patterns of Cognitive Style. *Australian Journal of Education*, 21(3), 233-255.
- Putrevu, S. (2004). Communicating with the Sexes: Male and Female responses to Print Advertisements. *Journal of Advertising*, 33 (3), 51-62.
- Richard, M.-O., Chebat, J.-C., Yang, Z., & Putrevu, S. (2010). A proposed model of online consumer behavior: Assessing the role of gender. *Journal of Business Research*, 63(9-10), 926-935

Sen, S., & Lerman, D. (2007). Why are you telling me this? An examination into negative consumer reviews on the Web. *Journal of Interactive Marketing, 21*, 76-94.

Todorov, A., Chaiken, S., & Henderson, M. D. (2002). The heuristic-systematic model of social information processing. In J. P. Dillard & M. Pfau (Eds.), *The Persuasion Handbook: Developments in Theory and Practice* (pp. 195-211): SAGE.

Wolin, L. D., & Korgaonkar, P. (2003). Web advertising: gender differences in beliefs, attitudes and behavior. *Internet Research, 13* (5), 375 - 385.

Zhang, W., & Watts, S. (2003). *Knowledge Adoption in Online Communities of Practice*. Paper presented at the 24th International Conference on Information Systems, Atlanta.

AN INTERGRATIVE VIEW OF SOCIAL MEDIA AND BRAND PERCEPTIONS: A THEORETICAL ORIENTATION

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ABSTRACT

A growing body of research has acknowledged the role of social media in facilitating effective marketing communications and community cohesion in the evolving technological environments. Conceptually, scholars have begun to examine how social media engagement influences effective brand strategy. Whilst empirical evidence is scarce, the current study reviews a number of disparate extant theoretical domains related to social media and brand perceptions. This study provides a unique context to analyse the knowledge benefits of social media and brand perceptions for two primary reasons. First, it highlights that understanding social media and brand perception interfaces offers marketers a much more differentiated platform in the development of their marketing plans. Second, it elucidates the role of reference groups in facilitating online brand communities, and invariably offers additional insights into how practitioners could tap into the potential benefits of reference groups in social media platforms.

INTRODUCTION

Social media is a relatively new construct in the communications world. However, a growing number of practitioners and researchers have provided different interpretations and perspectives on the meaning of social media (Mathur et al., 2012; Nair, 2011; Dann and Dann, 2011; Strokes, 2009). Despite increasing interests and interpretations however, the one thing that remains constant about social media is the fact that it is growing at a phenomenal rate (Lipsman et al., 2012; Lee et al., 2011; Smith, 2009; Gangadharbatla, 2007). It is transforming consumer behaviours and marketing communication patterns (Remidez and Jones, 2012; Lee et al., 2011; Prendergast et al., 2010; Smith, 2009), thus playing a part in moulding consumer brand perceptions. The terms social media and Web 2.0 have often been used interchangeably, however researchers have identified that they are simply closely related (Kaplan and Haenlein, 2010; Constantinides and Fountain, 2008; Cooke and Buckley, 2008). Therefore, it is imperative that the two concepts are clarified in any theoretical discussion. According to Kaplan and Haenlein (2010), Web 2.0 is a term that was first used in 2004 to describe a new way in which software developers and end-users started to make use of the World Wide Web. They described it as a platform whereby content and applications are no longer created and published by individuals, but instead are continuously modified by all users in a participatory and collaborative fashion. Similarly, it has also been described as software that supports group interactions with significant attributes; namely the ease of sharing, cooperating and co-creating content (Cooke and Buckley, 2008). Implicitly, these authors seem to look at social media from technical and mechanistic perspectives in that the concept of social media is seen as a technological platform for content creation.

In a recent study, Mathur et al. (2012, p.14) describe social media as “a set of applications (e.g. Facebook, Twitter, Flickr) that are built to run on a ‘Web 2.0’ platform – in essence, ...the ‘place’ where an application/program resides and runs, or is called upon for use. This Web-based platform inherently enables the creation and distribution/sharing of information created by users/consumers and this is referred to as user-generated content.” As such, social media is widely recognisable by the occurrence of user-generated content (UGC). A study by Mayfield (2008) identified seven kinds of social media as follows:

1. *Social Networks* are sites that allow people to build personal web pages and then connect with friends to share content and communication. The biggest social networks are Facebook, Twitter and LinkedIn (Hung et al., 2011; Boyd and Ellison, 2008).
2. *Blogs* are perhaps the best-known form of social media; blogs are online journals, with entries appearing with the most recent first.
3. *Wikis* are websites that allow people to add content to or edit the information on them, acting as communal documents or databases. The best-known wiki is Wikipedia, the online encyclopaedia that has over 2 million English language articles.
4. *Podcasts* refer to audio and video files that are available by subscription, through services like Apple iTunes.
5. *Forums* are areas for online discussion, often around specific topics of interest. Forums came about before the term 'social media' and are a powerful and popular element of online communities.
6. *Content Communities* organise and share particular kinds of content. The most popular content communities tend to form around photos (Flickr), bookmarked links (del.icio.us) and videos (YouTube).
7. *Microblogging* is the combination of social networking and bite-sized blogging, where small amounts of content ('updates') are distributed online and through mobile phone networks. Twitter is the clear leader in this field.

Additionally, Nair (2011) suggested that widgets—pieces of software that perform a task of some sort on the web—are another type of social media. According to Mayfield (2008), all social media sites share all or most of the following five characteristics. Firstly, social media is all about *participation*. It encourages contributions and feedback from everyone who is interested and it blurs the line between media and audience. The second characteristic of social media is *openness*. Most social media services are open to feedback and participation, which encourages voting, comments and the sharing of information. There are rarely any barriers to accessing and making use of content, and password-protected content is frowned upon. Whereas traditional media is about 'broadcast' content (transmitted or distributed to an audience), social media is better seen as a two-way *conversation*. The fourth characteristic of social media would be *community*. Social media allows communities to form quickly and communicate effectively and communities share common interests, such as a love of photography, a political issue or a favourite TV show. Lastly, most kinds of social media thrive on their *connectedness*, making use of links to other sites, resources and people.

Although it is true that many social media sites share all of these characteristics, it is at the same time crucial to recognise that 'openness' is more often than not the one aspect not associated with social media sites that do not share all of the five attributes. This is in view of the fact that there are social media sites that require consumers to create a password-protected account to access information available through that designated web community. Additionally, Boyd and Ellison (2008) found that social networking sites also provide their users with the option of creating a public or semi-public account within an enclosed system. Hence, not all data on social media sites are accessible, and password-protected content is considered commonplace.

THEORETICAL FRAMEWORK

Nair (2011) describes social media as online platforms where content, opinions, perspectives, insights and media can be shared. For Strokes (2009), social media encompasses various media that is published, created and shared by people on the Internet, such as blogs, images, video and more; however, the author failed to elaborate on the other types of media. Many researchers argue that there are two primary reasons as to why individuals use social media, and these are for communication and relationship maintenance (Diffley et al., 2011; Hutton and Fosdick, 2011; Kim and Ko, 2010). Apart from these factors, Heinonen (2011) discerns four other motivators for social

media usage; namely socialising, entertainment, self-status seeking and information gathering. Furthermore, Hutton and Fosdick (2011, p.566) argued that when consumers engage socially online, it is to fulfil certain needs. Those needs include the desires “to promote themselves, to share new experiences with others, and to simply have fun or waste time”.

Jevons and Gabbott (2000) identified that as consumers actively participate in online content creation and sharing, they become highly influential. Consequently, consumers today have indirectly diminished the role of marketers as they become more dominant. As the accessibility and reach of the Internet enables users to retrieve all types of information, businesses are now also facing some difficulty in adhering to traditional organisational communication frameworks of non-transparency and hierarchy.

Social media is today’s most advanced and popular way in which individuals share and discover information. It facilitates social interaction through the digital realm, disregarding geographical and physical boundaries. Moreover, it helps individuals, consumers, retailers, employees and employers engage with each other like never before, essentially providing them with a whole new online experience. Dann and Dann (2011) offer a wider spectrum but simplify the meaning on the concept of social media, suggesting it is all about the interconnection between content, users and communication technologies.

While consumers nowadays are spending increasing amounts of time on the Internet, it is assumed that online communities play a significant role in moulding consumer brand perceptions. Perception is the process by which stimuli are selected, organised or interpreted (Solomon et al., 2010; McDonald, 2012; Potgieter, 2011). Sadeghi and Tabrizi (2011, p.698) describe brand perceptions as the ability to identify a brand under different conditions, as reflected by brand recognition or recall performance. Brand perceptions play a critical role in consumer purchase experiences because they are assumed to influence consideration and evaluation, and can eventually lead to the purchase of a product or service (Keller, 2003). Drawing on previous research, some factors that influence brand perception are physical qualities, containers, packaging, price, advertising, promotion and merchandising (Munn, 1960). On the other hand, Wanke et al. (2007) have also identified phonetic variations and semantic meanings as factors that affect perception.

EVOLUTION OF THE DOMAIN OF SOCIAL MEDIA

There are conflicting schools of thought regarding the dawn of social media. Some suggest that social media began before the emergence of computers as it started out ‘online’, on the phone. These early social media explorers built boxes/homemade electronic devices that could generate tones allowing them to make free calls and get access to the experimental back end of the telephone system (Borders, 2009). In 1988, Internet Relay Chat (IRC) was developed for file and link sharing, and keeping in touch (Chapman, 2009). It is known today as the ‘father’ of instant messaging. Conversely, others argue that social media only came about in more recent years. “The first recognisable social network site launched in 1997. SixDegrees.com allowed users to create profiles, list their Friends and, beginning in 1998, surf Friends lists” (Boyd and Ellison, 2008, p.4). Each of the features, however, existed in other forms of social media before SixDegrees, but SixDegrees was the first to combine them. This site then saw the development of two other major social networking sites, Friendster in 2002 and MySpace in 2003.

ICONIC SOCIAL MEDIA: FACEBOOK

Facebook has been described by its creator as “a social utility that helps people communicate more efficiently with their friends, family and co-workers” (Mauri et al., 2011, p.723). A Harvard sophomore student named Mark Zuckerberg founded the social-networking site in 2004. Previously known as The Facebook, the site was launched as a social networking platform limited to the students of Harvard University, but it gradually allowed other schools and business communities to register as users over time. During these developmental years, Mark Zuckerberg continuously evolved the platform by introducing innovative ideas and useful features such as comments and relationship status updates.

In 2006, the site officially became public due to overwhelming interest. Facebook is today’s most dominant social-networking site, with more than a billion monthly active users as of December 2012 (Facebook,

2013) as a result of its unprecedented growth. It allows users to create their own profile by adding pictures and personal information, and to form a certain image of themselves, be it to develop a personal or professional reputation. Lipsman et al. (2012) identified that Facebook is highly popular amongst the younger generation; therefore, it accounts for 90 per cent of time spent on social-networking sites.

THE RELEVANCE OF DIMINUTIVE PLATFORM: BLOGS

Blogs are one of the first and most popular social media platforms. A Swarthmore College student, Justin Hall, created an online personal journal in 1994 called Links.net, now recognised as the first Web log or blog (Mayzlin and Yoganasimhan, 2012). As described by Miller and Pole (2010, p.1514), "...a blog is a Web site containing dated entries, or posts, presented in reverse-chronological order. Blog features commonly include archives (previous posts, typically grouped by month and year), a blogroll (a list of recommended blogs), and a reader comment section". Some researchers state that the term 'blog' was first introduced in 1997, whereas Kaplan and Haenlein (2010) counter that it was truncated from the word 'weblog' in 1960 when one blogger jokingly altered the noun into the phrase 'we blog'.

Blogs allow individuals with Internet access to share anything they want with their readers, such as personal stories, reviews, interests and ideas. Most blogs are interactive in the sense that they allow readers to leave comments and socialise with other readers and authors through different 'widgets'. Increasingly, blogs are becoming popular sources of UGC and are highly popular amongst marketers. Saxena (2011) proposes that companies use blogs for marketing and PR for three purposes: to observe what millions of readers are saying about the company, its products and competitors; to participate in the discussion between the bloggers by commenting on the bloggers' quotes; and to give product information to people by starting their own blog. Moreover, influential bloggers who reach millions of readers have come to take on a terminology of distinction as "celebrity bloggers" (Colliander and Dahlen, 2011).

Today, there are three very popular blogging platforms, namely Livejournal and Blogger, both founded in 1999, and Wordpress, founded in 2003. On top of that, there is another type of blogging that is experiencing a rapid increase in popularity: microblogging (Hutton and Fosdick, 2011). Microblogs are much the same as other blogs except for the fact that they restrict the length of posts (e.g. 140 characters on Twitter). Twitter was invented in 2006 and is today's most favoured microblogging site (Mayfield, 2008).

REFERENCE GROUPS AND SOCIAL MEDIA: INTERPLAY

Reference groups are described as "actual or imaginary institutions, individuals or groups conceived of having significant relevance upon an individual's evaluations, aspirations or behaviour" (Lessig and Park, 1978, p.41). Nowadays, the use of spokespersons in product and service endorsement is highly prevalent. It is a belief that when individuals who are looked upon as belonging to a group, they inspire others and such individuals have the power to influence information processing, attitude formation and purchase behaviour (Bearden et al., 1989). Flynn et al. (1996) suggest that consumers disseminate product information through word-of-mouth (WOM), as consumption is a leading topic of discussion in the context of social media commentary. They then influence each other further by offering advice to those who seek it. Some even become so influential that they inspire other consumers, who observe their behaviour to emulate them in various ways. More often than not, the influence of reference groups on individual behaviour is manifested in the types of products and brands purchased by individuals (Keller and Fay, 2012; Christodoulides et al., 2012; Trusov et al., 2009; Childers and Rao, 1992).

Opinion leaders and opinion seekers are two prevalent constructs of WOM (Wojnicki, 2006). Solomon et al. (2010) define opinion leaders as people who are knowledgeable about products and whose advice is taken seriously by others. These individuals are often respected in their field of knowledge in terms of the topics they share, and other people usually go to them for recommendations and advice. Hence, opinion leaders are highly influential. Shoham and Ruvio (2008, p.282) also state that they tend to be "competent technically vis-à-vis being able to use new high-tech products, are heavy consumers of the mass media, and are socially active". Though it has been widely established that opinion leaders are informed and experienced about/with products, many researchers have argued that an opinion leader's expertise is product-class-specific, meaning they are only wellversed about a specific product category (El-Omari and Shane, 2010; Higie et al., 1987; Feick and Price,

1987; Price et al., 1987). Thus, an opinion leader's influence only extends to consumers who seek information of a specific category.

Feick and Price (1987) postulate that opinion leaders have a desire to provide marketplace and shopping information to other consumers. Price et al. (1987) further elaborate that when opinion leaders convey brand information, they achieve a sense of satisfaction, as they feel they help to reduce the cost of information searches for their fellow consumers. Opinion seekers, on the other hand, are individuals who are more likely to discuss and ask for product information with other consumers (Solomon et al., 2010), and they are "highly attentive to social comparison information" (Rose and Kim, 2011, p.204). Consequently, that is how the two constructs have an impact on each other; opinion seekers search for specific product information, and they receive it from opinion leaders who are keen to share.

Within online communities, family members are often considered as a type of reference group as well. The younger members (opinion seekers) may regard their older family members as opinion leaders, who are naturally highly influential. That being the case, they may consciously or subconsciously allow their older siblings or parents to influence their brand preferences and loyalties, the way they search for information, their dependability on certain media, their price sensitivity and their adherence to price-quality beliefs. This type of socialisation is known as intra-family communication or intergenerational influence—where the effect of the family in the socialisation of offspring impacts on the individual's norms, attitudes and values (Childers and Rao, 1992).

Acar and Polonsky (2007) put forth that opinion seekers spend more time online and have larger networks in comparison to opinion leaders, and opinion leaders are more likely to share their brand experiences online. In addition, the study also concludes that opinion leaders can significantly influence the behaviour and attitudes of opinion seekers when it comes to the purchase of new products in particular. Evidently, although consumers may search for information from a variety of sources, there are just some people whose advice is taken more seriously as they are more credible than others.

Escalas and Bettman (2003) found that individuals are more likely to develop a self-brand connection when there is a strong usage association between reference groups and brands, and when there is a strong connection between reference groups and consumer self-concepts. This basically infers that brands that are well liked or have usage rates within certain reference groups and consumers who are part of these groups are likely to be positively influenced by them too. Lessig and Park (1978) identified and examined three motivational reference group functions (RGFs) from the perspective of individual motivational functions.

Informational Reference—While the researchers argue that an informational reference group inflicts zero standards on an individual, they state that an influence will be internalised if a consumer perceives that it enhances their knowledge about the environment and/or their ability to cope with certain aspects of it. As such, the likelihood of an individual accepting information from this reference group increases according to his reality if he feels uncertainty associated with the purchase and/or lacks relevant purchase-related experience. This suggests that when consumers want to make a purchase, they may refer to Facebook or to a blog written by people they know personally or by an opinion leader, to attain more information about the product.

Utilitarian Reference—This group function can be described as individuals who are motivated to comprehend a reward or to avoid a punishment brought about by some other individual or group that is expected to conform to the other's influence. This adherence only occurs if the individual feels that his actions are visible or will be known. This suggests that when a consumer is in a product-purchasing situation, he or she is expected to follow the preferences or expectations of opinion leaders. As such, a consumer who participates in certain Facebook brand pages or blogs would tend to allow others to see their profile, as it would display their group associations.

Value-Expressive Reference—This group function communicates that an individual motivated to enhance or support his self-concept would be expected to associate himself with positive referents and/or dissociate himself from negative referents. Lessig and Park (1978, p.42) explain, "The degree of cohesiveness or norm specificity of the reference group is irrelevant for this function. What is important is the psychological image associated with the group whether the group is real or imaginary." This suggests that a consumer's

association with a Facebook page or blog is not attributed directly to a search for its main function (information), but because they are seeking to fulfil other personal needs.

In our current digital age, firms are no longer in control of brand-related media (Campbell et al., 2011). “The truth is that corporate marketing never had control of the brand. The ownership of the brand and its reputation has always belonged to the consumer” (Booth and Matic, 2011, p.185). Social media sites in the form of these online communities have given consumers a group space in which they can be a part of creating and sharing information about brands to influence wider perceptions of those brands. Therefore, it is crucial to understand the dynamics of these online communities to be able to implement an effective marketing strategy.

According to Zafar and Rafique (2012), the meaning of a brand is retained in a consumer’s mind based on what they have learned, felt, seen and heard about it over a period of time. It is therefore crucial for marketing professionals to carefully promote their brand in a way that will successfully appeal to and satisfy consumer interests, needs and wants. As Steward (2008) noted, a brand’s reputation is its most valuable asset, therefore it is worth careful management and monitoring. Vigneron and Johnson (2004) identified that luxury brands in particular, can trigger five different aspects of consumer perceptions. While it is vital in identifying factors that affect brand perceptions, understanding how the characteristics of luxury brands affect brand perceptions should be looked into as well, as this conceptual framework provides insight for marketers in terms of how to alter their brand strategies to effectively influence their target audience. The five aspects are as follows.

Perceived Conspicuousness—The consumption of luxury brands may be important to individuals in search of social representation and position. Having said that, social status associated with a brand is a significant factor in conspicuous consumption. According to Dodds et al. (1991), the price and quality of a product are positively related. That means if a product is priced high, it is more likely to be perceived as a high-quality product. Consumers who are status conscious would gravitate more towards the purchasing of a product that is expensive because it is an indicator of luxury. As such, consumers would perceive luxury goods as the products that would fulfil their need to be associated with a high social status.

Perceived Quality—Consumers expect that luxury brands offer the finest product qualities and performance as compared with non-luxury brands. Perfectionist consumers may perceive more value from a luxury brand because they may assume that it will have exceptional brand quality and reassurance. Once the decision is made to position a brand as ‘luxury’, specific actions are required and crucial for creating and maintaining the position (Emile and Craig-Lees, 2011). Some actions include the company advocating attention to quality and craftsmanship, design signature and premium pricing (Fionda and Moore, 2009). Not only do these aspects of luxury brands fulfil a need to achieve an affluent status, but they also make the brands more desirable.

Perceived Uniqueness—Past research reveals that scarcity or limited supply of products heightens consumer preferences for brands. Individuals express a ‘need for uniqueness’ when they are searching for something that is difficult to acquire. Kapferer (1998) lists quality and uniqueness as two of the few key attributes of a luxury brand that need to be integrated with exclusivity. This goes to show that consumers want products of a particular brand that are not readily available so they could be perceived as one of a kind (being one of the few customers with a specific product). Furthermore, it enhances their self-image and social image by adhering to their personal taste, or stepping out of the norm, or simply avoiding similar consumption (Vigneron and Johnson, 2004). Conversely, Berger et al. (2007) argue that product variety also has its benefits—it influences perceived brand quality and it can also enhance a consumer’s repeat purchase rate, though this mainly applies to consumable goods.

Perceived Extended Self (Personal)—Individuals may use luxury brands to classify or differentiate themselves in relation to others, but they may also try to blend symbolic meaning into their own identity. This suggests that consumers regard their possessions as part of their self. Kapferer and Bastien (2009, p.314) claim that, “with luxury recreating some degree of social stratification, people in a democracy are therefore free—within the limit of their financial means—to use any of its components to define themselves socially as they wish”. Accordingly, materialistic consumers may regard luxury brands as a way to attain happiness, and may use these brands to assess personal or others’ success (Vigneron and Johnson, 2004).

Perceived Hedonism (Personal)—Luxury seekers are considered hedonic consumers when they are looking for personal rewards and satisfaction obtained through the purchase and consumption of products evaluated for their subjective emotional benefits and innate pleasing characteristics, rather than for their functional benefits. As much as there are consumers who seek luxury products to fulfil or conform to a certain image, there are also other people who purchase luxury goods to simply achieve sensory gratification and sensory pleasure.

The core of a luxury brand is a strong brand identity. Keller (2009) argues that for a brand to assume a luxury status, certain actions are required that will result in a premium image. Undoubtedly, the whole intention is for consumers to see the brand as special in some way at both a personal and public level (Emile and Craig-Lees, 2011). With these pre-noted perceptions that consumers could have of luxury brands, marketers can take advantage of this knowledge to craft an effective marketing strategy to enhance and create more positive perceptions of luxury brands.

MANAGERIAL IMPLICATIONS AND FUTURE RESEARCH DIRECTIONS

This study offers several potential contributions to the concept of social media and the aspects of social media sites that play a part in influencing consumer brand perceptions. The implications of this investigation are of significance for marketing professionals and researchers in the field of social media and brand perceptions. It establishes a structured analysis of social media and proposes particular features of this growing phenomenon that influence consumers' brand perceptions. The findings of this research could serve various purposes, but perhaps it could be specifically applied to the creation of effective integrated marketing strategies by including social media, or to address the issue of how to utilise social networking sites to effectively enhance and maintain positive brand perceptions of consumers.

The present study reveals that social media is a highly dynamic medium that is supported by Web 2.0, together with the constant flow of user-generated content. Although social media greatly diminishes the need for physical contact between a marketer and a consumer, which can be difficult in the marketing of products that are sensory by nature, the platform encompasses other significant benefits (Khang et al., 2012; Smith, 2009; Gangadharbatla, 2007). The two main advantages of this relatively new marketing platform are its ability to facilitate direct real-time interactions between marketers and consumers, or more specifically, their distinct target audiences, as well as to provide marketing professionals and managers with a comprehensive realm of valuable consumer feedback on various products and services.

In summary, the findings of this study articulate in-depth explanations of the fundamental aspects of social media, and the impact of WOM through various reference groups on social media, on brand perceptions. These findings help explain the key features of social media that marketers must establish, utilise or monitor for creating a lasting marketing strategy. In other words, marketers should proactively explore the benefits and drawbacks of social media and experiment in terms of effectively using WOM as part of their marketing strategy to become opinion leaders on social media sites, namely Facebook and blogs, to construct an effective marketing strategy.

In addition, the elucidation of the set of preconceived perceptions that consumers could have of luxury brands (in particular) is particularly useful for marketing professionals to recognise competitive advantage. As the set of associations that consumers have about a brand become critical components of brand equity, having identified this favourable insight provides marketers and managers with the opportunity to construct a brand strategy that is certain to positively influence consumer perceptions of luxury brands. Seeing that social media is a platform that is constantly evolving, it is also important for marketing professionals and managers to consistently monitor social media (for notable developments) in order to maintain or improve the effectiveness of their marketing campaigns. This study has reviewed social media sites and how these can impact on the brand perceptions of consumers. However, the discussion of social media sites was limited solely to Facebook and blogs. Future research could identify and examine other social media platforms and related distinct features, as research into those could possibly develop upon this study.

REFERENCES

- Acar, A. and Polonsky, M. (2007) Online Social Networks and Insights into Marketing Communications. *Journal of Internet Commerce*, 6 (4), pp.55–72.
- Bearden, W., Netemeyer, R.G. and Teel, J.E. (1989) Measurement of Consumer Susceptibility to Interpersonal Influence. *Journal of Consumer Research*, 15 (4), pp.473–81.
- Berger, J., Draganska, M. and Simonson, I. (2007) The Influence of Product Variety on Brand Perception and Choice. *Journal of Marketing Science*, 26 (4), pp.460–72.
- Booth, N. and Matic, J. (2011) Mapping and leveraging influencers in social media to shape corporate brand perceptions. *Corporate Communications: An International Journal*, 16 (3), pp.184–91.
- Borders, B. (2009) *A Brief History of Social Media* [online]. Available at: <http://copybrighter.com/history-of-social-media> [accessed: 9 March 2013].
- Boyd, D. and Ellison, N. (2008) Social Network Sites: Definition, History, and Scholarship. *Journal of Computer-Mediated Communication*, 13 (1), pp.210–30.
- Campbell, C., Pitt, L., Parent, M. and Berthon, P. (2011) Tracking Back-Talk in Consumer-Generated Advertising. *Journal of Advertising Research*, 51 (1), pp.224–38.
- Chapman, C. (2009) *The History and Evolution of Social Media* [online]. Available at: <http://www.webdesignerdepot.com/2009/10/the-history-and-evolution-of-social-media/> [accessed: 9 March 2013].
- Childers, T. and Rao, A. (1992) The Influence of Familial and Peer-based Reference Groups on Consumer Decisions. *Journal of Consumer Research*, 19 (2), pp.198–221.
- Christodoulides, G., Jevons, C. and Bonhomme, J. (2012) Memo to Marketers: Quantitative Evidence for Change. *Journal of Advertising Research*, 52 (1), pp.53–64.
- Colliander, J. and Dahlen, M. (2011) Following the Fashionable Friend: The Power of Social Media. *Journal of Advertising Research*, 51 (1), pp.313–20.
- Constantinides, E. and Fountain, S. (2008) Web 2.0: Conceptual foundations and marketing issues. *Journal of Direct, Data and Digital Marketing Practice*, 9 (3), pp.231–44.
- Cooke, M. and Buckley, N. (2008) Web 2.0, social networks and the future of market research. *International Journal of Market Research*, 50 (2), pp.267–92.
- Dann, S. and Dann, S. (2011) *E-marketing: theory and application*. Houndmills, Palgrave Macmillan.
- Diffley, S., Kearns, J., Bennett, W. and Kawalek, P. (2011) Consumer Behaviour in Social Networking Sites: Implications for Marketers. *Irish Journal of Management*, 30 (2), pp.47–65.
- Dodds, W., Monroe, K. and Grewal, D. (1991) Effects of Price, Brand, and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28 (3), pp.307–19.
- El-Omari, H. and Shane, M. (2010) Opinion Leaders and Their Influence on Consumer Purchasing Behavior in Saudi Arabia. *Global Journal of Business Research*, 4 (4), pp.51–70.
- Emile, R. and Craig-Lees, M. (2011) A Luxury Perspective on Brands – Characteristics, Value, and the Eye of

the Beholder. *Advances in Consumer Research*, 39, pp.307–10.

Escalas, J. and Bettman, J. (2003) You Are What They Eat: The Influence of Reference Groups on Consumers' Connections to Brands. *Journal of Consumer Psychology*, 13 (3), pp.339–48.

Facebook (2013) *Key Facts – Facebook Newsroom* [online]. Available at <http://newsroom.fb.com/Key-Facts> [accessed: 9 March 2013].

Feick, L. and Price, L. (1987) The Market Maven: A Diffuser of Marketplace Information. *Journal of Marketing*, 51 (1), pp.83–97.

Fionda, A. and Moore, C. (2009) The Anatomy of the Luxury Fashion Brand. *Journal of Brand Management*, 16 (5/6), pp.347–63.

Flynn, L., Goldsmith, R.E. and Eastman, J.K. (1996) Opinion Leaders and Opinion Seekers: Two New Measurement Scales. *Journal of the Academy of Marketing Science*, 24 (2), pp.137–47.

Gangadharbatla, H. (2007) Facebook Me: Collective Self-Esteem, Need to Belong, and Internet Self-Efficacy as Predictors of the iGeneration's Attitudes toward Social Networking Sites. *Journal of Interactive Advertising*, 8 (2), pp.1–28.

Heinonen, K. (2011) Consumer activity in social media: Managerial approaches to consumers' social media behavior. *Journal of Consumer Behaviour*, 10 (6), pp.356–64.

Higie, R., Feick, L. and Price, L. (1987) Types and Amount of Word-of-Mouth Communications about Retailers. *Journal of Retailing*, 63 (3), pp.260–78.

Hung, K., Li, S.Y. and Tse, D.K. (2011) Interpersonal Trust and Platform Credibility in A Chinese Multibrand Online Community. *The Journal of Advertising*, 40 (3), pp.99–112.

Hutton, G. and Fosdick, M. (2011) The Globalization of Social Media: Consumer Relationships with Brands Evolve in the Digital Space. *Journal of Advertising Research*, 51 (4), pp.564–70.

Jevons, C. and Gabbott, M. (2000) Trust, Brand Equity and Brand Reality in Internet Business Relationships: An Interdisciplinary Approach. *Journal of Marketing Management*, 16 (6), pp.619–34.

Kapferer, J. (1998) Why are we seduced by luxury brands? *Journal of Brand Management*, 6 (1), pp.44–9.

Kapferer, J. and Bastien, V. (2013) The specificity of luxury management: Turning marketing upside down. *Journal of Brand Management*, 16 (5/6), pp.311–22.

Kaplan, A. and Haenlein, M. (2010) Users of the world, unite! The challengers and opportunities of Social Media. *Business Horizons*, 53 (1), pp.59–68.

Keller, K. (2003) Understanding brands, branding and brand equity. *Interactive Marketing*, 5 (1), pp.7–20.

Keller, K. (2009) Managing the growth tradeoff: Challenges and opportunities in luxury branding. *Journal of Brand Management*, 16 (5/6), pp.290–301.

Keller, E. and Fay, B. (2012) Word-of-Mouth Advocacy: A New Key to Advertising Effectiveness. *Journal of Advertising Research*, 52 (4), pp.459–64.

Khang, H., Ki, E. and Ye, L. (2012) Social Media Research in Advertising, Communication, Marketing, and Public Relations. *Journalism & Mass Communication Quarterly*, 89 (2), pp.279–98.

Kim, A. and Ko, E. (2010) Do social media marketing activities enhance customer equity? An empirical study

- of luxury fashion brand. *Journal of Business Research*, 65 (10), pp.1480–6.
- Lee, D., Kim, H. and Kim, J. (2011) The Impact of Online Brand Community Type on Consumer's Community Engagement Behaviors: Consumer-Created vs. Marketer-Created Online Brand Community in Online Social-Networking Web Sites. *Cyberpsychology, Behavior and Social Networking*, 14 (1–2), pp.59–63.
- Lessig, V. and Park, C. (1978) Promotional Perspectives of Reference Group Influence: Advertising Implications. *Journal of Advertising*, 7 (2), pp.41–7.
- Lipsman, A., Mudd, G., Rich, M. and Bruich, S. (2012) The Power of 'Like' – How Brands Reach (and Influence) Fans through Social-Media Marketing. *Journal of Advertising Research*, 52 (1), pp.40–52.
- Mathur, P., Black, J.E., Cao, J., Berger, P.D. and Weinberg, B.D. (2012) The Impact of Social Media Usage on Consumer Buying Behavior. *Advances in Management*, 5 (1), pp.14–22.
- Mauri, M., Cipresso, P., Balgera, A., Villamira, M. and Riva, G. (2011) Why Is Facebook So Successful? Psychophysiological Measures Describe a Core Flow State While Using Facebook. *Cyberpsychology, Behavior and Social Networking*, 14 (12), pp.723–31.
- Mayfield, A. (2008) *What Is Social Media?* [e-book] iCrossing, pp.1–36. Available at: <http://www.icrossing.co.uk;> http://www.icrossing.co.uk/fileadmin/uploads/eBooks/What_is_Social_Media_iCrossing_ebook.pdf [accessed: 7 December 2012].
- Mayzlin, D. and Yoganarasimhan, H. (2012) Link to Success: How Blogs Build an Audience by Promoting Rivals. *Journal of Management Science*, 58 (9), pp.1651–68.
- McDonald, S. (2012) Perception: A Concept Analysis. *The Official Journal of NANDA International*, 23 (1), pp.2–9.
- Miller, E. and Pole, A. (2010) Diagnosis Blog: Checking Up on Health Blogs in the Blogosphere. *American Journal of Public Health*, 100 (8), pp.1514–19.
- Munn, H. (1960) Brand Perception as Related to Age, Income, and Education. *Journal of Marketing Management*, 24 (3), pp.29–34.
- Nair, M. (2011) Understanding and Measuring the Value of Social Media. *Journal of Corporate Accounting & Finance*, 22 (3), pp.45–51.
- Potgieter, D. (2011) What's Your Perception? Belief = Reality. *South Africa Institute of Chartered Accountants*, pp.38–9.
- Prendergast, G., Ko, D. and Yuen, S.Y.V. (2010) Online word of mouth and consumer purchase intentions. *International Journal of Advertising*, 29 (5), pp.687–708.
- Price, L., Feick, L. and Higie, R. (1987) Information Sensitive Consumers and Market Information. *Journal of Consumer Affairs*, 21 (2), pp.328–41.
- Remidez, H. and Jones, N. (2012) Developing a Model for Social Media in Project Management Communications. *International Journal of Business and Social Science*, 3 (3), pp.33–6.
- Rose, P. and Kim, J. (2011) Self-Monitoring, Opinion Leadership and Opinion Seeking: a Sociomotivational Approach. *Current Psychology*, 30 (3), pp.203–14.
- Sadeghi, T. and Tabrizi, K. (2011) The Correlation Between Feelings and Brand Perception on Purchase Intention. *World Applied Sciences Journal*, 12 (5), pp.697–705.

- Saxena, A. (2011) Blogs and Their Impact on Purchase Intention: A Structural Equation Modelling Approach. *Paradigm (Institute of Management Technology)*, 15 (1/2), pp.102–10.
- Shoham, A. and Ruvio, A. (2008) Opinion Leaders and Followers: A Replication and Extension. *Psychology and Marketing*, 25 (3), pp.280–97.
- Smith, T. (2009) The Social Media Revolution. *International Journal of Market Research*, 51 (4), pp.559–61.
- Solomon, R. S., Bamossy, G., Askegaard, S. and Hogg, M.K. (2010) *Consumer Behaviour: A European Perspective* 4th ed. Essex, UK: Prentice Hall.
- Steward, D. (2008) Evaluating Brand Perception. *Garden Retail – Horticulture Week*, Iss. Nov/Dec pp.9–9.
- Strokes, R. (2009) *eMarketing: The Essential Guide to Online Marketing*. Cape Town, South Africa: Quirk eMarketing Ltd.
- Trusov, M., Bucklin, R.E. and Pauwels, K. (2009) Effects of Word-of-Mouth Versus Traditional Marketing: Findings from an Internet Social Networking Site. *Journal of Marketing*, 73 (5), pp.90–102.
- Vigneron, F. and Johnson, L. (2004) Measuring perceptions of brand luxury. *Journal of Brand Management*, 11 (6), pp.484–506.
- Wanke, M., Herrmann, A. and Schaffner, D. (2007) Brand Name Influence on Brand Perception. *Psychology & Marketing*, 24 (1), pp.1–24.
- Wojnicki, A. (2006) Word-of-Mouth and Word-of-Web: Talking About Products, Talking About Me. *Advances in Consumer Research*, 33 (1), pp.573–5.
- Zafar, Q. and Rafique, M. (2012) Impact of Celebrity Advertisement on Customers' Brand Perception and Purchase Intention. *Asian Journal of Business and Management Sciences*, 1 (11), pp.53–67.

THE INFLUENCE OF KNOWLEDGE COMPETENCE ON COMPANY PERFORMANCE OF SMEs IN KAZAKHSTAN

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ABSTRACT

One of the most important factors affecting SMEs is knowledge competence. Knowledge competence is the ability of companies to use its elements of the knowledge in the most effective and efficient way. This study focuses on the analysis of the relationship between knowledge competence and company performance of 50 SMEs operating in Kazakhstan. Especially, in an environment which is characterized by dynamic changes and high turbulence knowledge competence does not limit the company from gaining other competencies but making the connection with the performance of the company. Based on that, this study analyzes the connection between knowledge competence and company performance of SMEs which operate in Kazakhstan in depth. Also in this study the relationship between knowledge competence of the small and medium enterprises are studied with the relationship to its performance.

INTRODUCTION

The knowledge – based view considers the knowledge competence as the most influential strategic resource of a company (Van Gils and Zwart, 2004). Especially, in an environment which is characterized by dynamic changes and high turbulence knowledge competence does not limit the company from gaining other competencies but making the connection with the performance of the company. Knowledge as a competence of SMEs positively affects on innovations and productivity in long-term perspective in Kazakhstan. However, SMEs usually are not willing to invest in knowledge management, and it limits possible outcomes. McAdam & Reid (2001) argued that SMEs have a less developed approach to knowledge management. Based on that, this study analyzes the connection between knowledge competence and company performance of SMEs which operate in Kazakhstan. This study focuses on the identifying the relationship between knowledge competence and company performance in the turbulent external environment caused by the global economic changes.

LITERATURE REVIEW

Knowledge competence

The quickly changing environment force companies to change. Nyhan (1998) argued that competence affects to company's competitiveness as a strategic factor. Meaning that, knowledge of a company as a competence can create a value (Teece, 1998). Knowledge competence includes stimulation of knowledge on all levels, when decision-making process become more transparent. However, external knowledge is also valuable source of knowledge competence, in this process companies learn from others and adjust that knowledge to internal conditions of a company (Menon, Pfeffer, 2003). From knowledge based theory, knowledge is a main source for competitive advantage. Thus, knowledge competence is considered as a key competence which includes experience of a company, knowledge of employees, competitors of a company and environment. Knowledge

competence is crucial in sustaining competitive advantage, because its difficult to imitate and it leads to sustainable differentiation (Wiklund and Shepherd, 2003).

Knowledge

Knowledge itself is considered as an influential to improve company performance. It can be used as a resource to “create gains from the uncertainties in business” (Liao et al., 2011). . Intangible asset of a company - knowledge is created by human capital (Fuller,2001).Human knowledge is important in organization because it connects tacit and explicit knowledge of an organization (Nonaka and Takeuchi, 1995). Kolb (1984) identified learning as a process whereby knowledge is created by the transformation of experience. Because knowledge defines companies competitiveness for existence on market, they had been developing own knowledge which differentiate them from competitors Nonaka (1994) suggested knowledge creating process which has 4 components: socialization, externalization, combination and internalization. Moreover, he argues that knowledge is created by both by tacit and explicit knowledge and there are no certain boundaries between them.

Competence

Competence is consists of necessary skills and resources which allows company to provide its service. Therefore, strategic or core competencies are the main sources for competitive advantage of a company. Prahalad and Hamel (1990) highlighted influence of competence management in organizations by introducing concept of core competencies. Competence can be divided into theoretical and operative (Westera, 2001). From this perspective, knowledge as a competence relates to operative because it relates to responding in different unplanned situation where theoretical competence considered as more known and identified. At the end of 1970s t the term competence was first introduced by Hofer and Schendell (1978). They defined it as a resources that influence to companies achievements. Because of high level of competition on market, companies need to constantly search for new resources of competencies. Yang (2010) argued that competencies are based on knowledge-based theories because of nature of its development inside organization which at the end leads to sustainable competitive advantage. These competencies are strategic where company improve performance its strategic functions through financial and strategic performance (Porter, 1991).It also help to develop most useful competence in the company.

Knowledge-based theory

Many scholars consider the knowledge-based theory is developed on the basis of the resource-based theory which focuses on company’s capabilities and resources leading to profit of a company. Because knowledge considered the most strategic resource the knowledge-based view started to develop (Tayauova, 2012). The knowledge-based theory of the firm highlights strategic importance of organizational knowledge in managing of a company (Nonaka, 1994). Also, it considers company as an integrator of knowledge. However, companies can integrate knowledge by specific mechanisms which apply knowledge to individual level (Grant, 1996). Moreover, Scarbrough (1998) argued that the knowledge-based view of a company is focused on creation and gathering of knowledge of employees by connecting organization inside and developing external connections of a company. Kogut and Zander (1992) stated that a company can create, transfer and transform knowledge to competitive advantage.

Competence based theory

The competence-based perspective considers company’s ability to exist on market when skills and tacit knowledge supported by organizational structure, conditions. Competence based theory directed to achieving sustainable competitive advantage of a company. Sanchez and Heene (2004) define competence based management theory as a theory which connects organizational itself with an external environment. They identified four aspects of organizational competencies such as dynamic, systemic, cognitive and holistic. These aspects are about managing internal and external environment in different conditions.

Knowledge management theory

Knowledge management creates value by existing intangible assets of a company. Therefore, it can be defined as a creation, acquisition, sharing, and utilization of knowledge for improvement of organizational performance (J. Laurie, 1997). Knowledge management use methods, which are aimed to direct and manage company's employees in appropriate way to constantly create changes. Knowledge management was researched by different authors. Snowden (2002) identified three generations of knowledge management. The first generation of knowledge management connected knowledge and technologies. The second generation defined tacit and explicit knowledge. The third generation of knowledge management considers knowledge as a system which is able to create innovations. Gronhaug and Nordhaug (1992) stated that mission, objectives of a company which are identified by the business strategy directly influence knowledge management process. The knowledge management has several activities such as KM activities as: (i) knowledge creation; (ii) knowledge retention; (iii) knowledge sharing; and (iv) knowledge innovation (Alleee, 1997). Therefore, knowledge management capability is a creation of knowledge, refraining, of knowledge, sharing, and its application. The knowledge management concentrates in developing and using knowledge within a company (Gold et al., 2001). Therefore, it could make a bit change of organizational objectives at the end.

Competitive advantage

The competitive advantage of company occurs when capabilities inside it adopt existing knowledge to external environment. Rouse and Daellenbach (2002) argued that competitive advantage relates to company performance through knowledge. At the same time, company's performance is achieved by organizational learning process. In this case, competitive advantage of a company depends on the knowledge about competitors financial position, strategies etc (Zack, 2002) which will make some changes.

Company performance

Dess et al (1995) identified that management capabilities, technical knowledge are the main factors which identify company performance. Management capabilities and technical knowledge are differ from company to company because they concentrate unique information. However, company performance can be measured in two ways: financial and non-financial performance. Many scholars more likely to consider knowledge competence as a factor influencing company performance because it affects job performance, increase quality of a product (Daud, Yusoff, 2010). Although, Becerra-Fernandez, Gonzales and Sabherwal (2004) identified that knowledge management can affect performance of a company in two ways: directed influence to improved company performance or creation of knowledge which improves it. However, knowledge-based theory confirms importance of knowledge for company performance because it influences competitive advantage by creating, acquiring, applying, sharing and preserving knowledge (Daud, Yusoff, 2010). De Gooijer (2000) introduced knowledge management model which fits to overall business performance management.

METHODOLOGY

Significant and objectives of research

The objective of this research is to study relationship between knowledge competence and company performance using data gathered from interviews conducted with managers of SMEs which operate in Kazakhstan. We selected 36 private firms from the initial database that included companies of Kazakhstan. Selection criteria included those that are small and medium sized enterprise. The number of interviews was 50, only those companies confirmed willingness to answer questions. In particular, we wanted to identify how knowledge competence influence performance of firms operating in Kazakhstan does. We have conducted interview with managers of SMEs. Before interview, we have sent questions of our interview and identified which companies want to take part in research.

Sample, Data Collections, Measures and Limitations of Research

Sample of our research consists of 50 companies. We have given questions of our interview beforehand, so that respondents will have some information about interview structure. Interviews were conducted in Russian language. Moreover, we asked 20 questions about knowledge competence and its impact on company performance. In order to identify impact of knowledge competence we used questions by Hsin-Jung Hsein (2007).

We then undertook a comprehensive literature review of knowledge management to derive a list of relevant questions. The semi-structured interviews and literature review formed the basis for developing our questionnaire, which contained five Likert-type scale. The subject of this work has some limitations caused by different sizes of business, industries where companies operate.

ANALYSIS AND RESULTS

In this research we have interviews with fifty top managers of companies, which are owned by those people. We have started our interviews with asking general information, such as type of business, operating industry, number of employees, year of opening a business. The companies were from different industries with different external environment, level of competition, skills and knowledge required to do a business in each sphere. Results of our interview showed that majorly knowledge become a competence of six companies which leads to improvements in performance. However, encouragement of development of knowledge is not used properly by top managers. At the same time, companies develop and implement strategies for the development of knowledge management. Six top managers of companies stated that only recently knowledge has become core competence of their company and since then financial results improved. Further, analysis reveals that companies sustaining knowledge as a competence. Companies sustain it by investing in human capital, knowledge of employees. The most popular practice in SMEs in Kazakhstan for development knowledge management strategy is developing manuals, formal documents which help to create and collect knowledge and later use it in developing competence. Because SMEs in Kazakhstan mostly managed by owners including family members where informal conversation is influential in sharing knowledge inside organization, in our interview with top managers we identified that there are 5 companies which are family managed and owned. But it doesn't mean that only family-owned company use informal conversation to share knowledge, in our case the impact on performance is greater in those companies which are family-owned and managed. Top managers proved it by annual growth of a company in industry. Interviewed top managers highlighted process of acquiring new knowledge in their companies. Three top managers stated that they acquire knowledge from business partners "by creating trustable and long-term relationship with them". From the other side, creating trustable relationship with partners are not achieved by all interviewed SMEs meaning that it's more difficult for them to compete, apply best practices. Tacit knowledge which is crucial in knowledge management is valuable in each interviewed organization and the managers. From this point, SMEs in Kazakhstan tend to develop this type of knowledge because it's more likely to positively influence to company performance. Moreover, to develop knowledge as a competence interviewed SMEs trying to encourage employees through motivation by empowering and horizontal flow of information. Performance of SMEs in relation to knowledge competence is measured by market share, success, profitability, and innovativeness and growth rate. In order to identify these indicators respondents were asked to answer these questions with five Likert-type scale. Results showed that three out of eleven respondents considered their companies more successful compared to competitors giving "5". That means, only three companies consider knowledge competence as a real source for improving company performance which affects positively on market share. However, growth rate and profitability were measured by 7 SMEs as "4", meaning that level is higher than the average. Innovativeness – important factor in assessing knowledge competence was measured as "3" by all companies meaning that generally innovativeness does exist in organizations but impact of it not so high in relationship with knowledge competence.

CONCLUSION

Knowledge competence becomes one of the key competencies of companies. Development of it requires constant employees' involvement in organizational process. Knowledge management as a part of company's

strategic management can enhance knowledge. Knowledge management strategy of organization is influenced by different issues such as behavior, culture which affect differently in each SME. Several results can be taken from this work. SMEs of Kazakhstan develop knowledge of employees by organizing trainings for them. These activities aimed to stimulate them as well as provide with more horizontal organizational structure and flow of information. But still it doesn't completely stimulate knowledge competence for development because it lacks more structured and planned knowledge management practices. As a result, company performance is difficult to change. However, SMEs only starting to develop knowledge as a competence of an organization meaning that in future, the strategy of knowledge management will be different more complicated. Moreover, it would be influenced more by human capital of organization. Nowadays, knowledge management is very popular in Kazakhstani government owned companies, but still SMEs lacking experience in this field. Therefore, improvements of knowledge competence and its impact on company performance of SMEs could be identified and developed in future analysis. Also it will take more positive action for the company in Kazakhstan.

REFERENCES

- Allee, V. (1997). 12 Principles of knowledge management, *Training and Development*, 11, 71–74.
- Becerra-Fernandez, I., Gonzalez, A., & Sabherwal, R. (2004). Knowledge management: Challenges, solutions and technologies. NJ: Pearson Education Incorporation.
- Chechen, L., Shu-Hui, C., & Pui-Lai, T. (2011). How knowledge management mediates the relationship between environment and organizational structure. *Journal of Business Research*, 64, 728-736.
- Daud, S., Yusoff, W.F.W. (2010). Knowledge management and firm performance in SMEs: The Role of Social Capital as a Mediating Variable, *Asian Academy of Management Journal*, 15, 135-155.
- De Gooijer, J. (2000). Designing a knowledge management performance framework. *Journal of Knowledge Management*, 4, pp.303-310.
- Dess, G., Gupta, A., Hennart, J. & Hill, C. (1995). Conducting and Integrating Strategy Research at the International, Corporate, and Business Levels: Issues and Directions. *Journal of Management*, 21, 357-393.
- Fuller, S. (2001). Knowledge Management Foundations. Butterworth-Heinemann, London.
- Gils, A.V., Zwart, P. (2004). Knowledge acquisition and learning in Dutch and Belgian SMEs: The role of strategic alliances, *European Management Journal*, 22, 685 – 692.
- Gold, A. H., Malhortra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18, 185–214.
- Grant, R. (1996). Toward a knowledge-based theory of the firm., *Strategic Management Journal*, 17, 109–122.
- Gronhaug, K., & Nordhaug, O. (1992). Strategy and competence in firms. *European Management Journal*, 10, 438–444.
- Hofer, C., Schendell, D., (1978). Strategy Formulation: Analytical Concepts. West Publishing Corporation, St. Paul.
- Hsieh, H.-J. (2007). Organizational characteristics, knowledge management strategy, enablers and process capability: knowledge management performance in U.S. software companies. Dissertation presented in partial fulfillment of the requirement for the degree of Doctor of Philosophy Lynn University, pp.1-209.
- Kolb, D.A., (1984.) Experimental Learning: Experience as the Source of Learning and Development. Prentice-Hall, Englewood Cliffs, NJ.

- Kogut, B., U. Zander.(1992). Knowledge of the firm, combinative capabilities and the replication of technology, *Organization Science*, 3, 383–397.
- Laurie,J. (1997),Harnessing the power of intellectual capital, *Training and Development*, 27 ,66–77.
- McAdam, R.& Reid, R. (2001). SME and large organization perceptions of knowledge management: comparisons and contrasts. *Journal of Knowledge Management*, 5, pp.231-241.
- Menon, T., Pfeffer, J. (2003). Valuing internal vs. external knowledge: explaining the preference for outsiders. *Management Science*, 49, 497–513.
- Nonaka, I., Takeuchi, H., (1995). *The Knowledge Creating Company. How Japanese Companies Create the Dynamics of Innovation.* Oxford University Press, Oxford.
- Nonaka, I., (1994). A dynamic theory of organizational knowledge creation. *Organization Science*,5, 14–47.
- Nyhan, B., (1998). Competence development as a key organizational strategy—experiences of European companies. *Industrial and Commercial Training*, 30, 267–273.
- Porter, M.E., 1991. Towards a dynamic theory of strategy. *Strategic Management Journal*, 12, 95–117
- Prahalad, C.K. & Hamel, G. (1990). The Core Competence of the Corporation, *Harvard Business Review*,May/June, 79-91.
- Rouse, M. and Daellenbach, U. (2002). More Thinking on Research Methods for the Resource-Based Perspective. *Strategic Management Journal*, 23, 963-967.
- Sanchez, R., Heene, A. (2004), *The New Strategic Management: Organizations, Competition and Competence*, John Wiley & Sons.
- Scarbrough, H. (1998). BPR and the knowledge-based view of the Firm. *Knowledge and Process Management*, 5, 192-200.
- Snowden, D. (2002).Complex acts of knowing: paradox and descriptive self-awareness. *Journal of Knowledge Management*, 6,100–111.
- Tayauova, G.(2012). The effect of foreign language knowledge and foreign market knowledge on success of foreign firms doing business in Kazakhstan. *Procedia-Social and Behavior Science*, 46, 3395-3400.
- Teece, D.J.(1998). Capturing value from knowledge assets: the new economy, markets for know-how, and intangible assets. *California Management Review*, 40, 55–79.
- Westera, W.(2001). Competencies in education: a confusion of tongues. *Journal of Curriculum studies*, 33, 75–88.
- Wiklund, J., Shepherd, D. (2003). Knowledge-Based Resources, Entrepreneurial Orientation, and the Performance of Small and Mediumm-sized Businesses. *Strategic Management Journal*, 24, 1307-1314.
- Yang, J. (2010). The knowledge management strategy and its effect on firm performance: a contingency analysis. *International Journal of Production Economics*, 125, 215–223.
- Zack, M. (2002). Developing a Knowledge Strategy. In Choo and Bontis (Eds.) *The Strategic Management of Intellectual Capital and Organizational Knowledge*, New York: Oxford University Press, 255-276.

AN INVESTIGATION INTO MEASUREMENTS AND DETERMINANTS OF ENERGY POVERTY: EVIDENCE FROM CROSS-SECTION DATA IN MALAWI

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ABSTRACT

Using economics approaches of measuring energy poverty, the findings of the study suggest that over 90 percent of the households sampled were energy poor. The Logit model of energy poverty reveal that household expenditure on transport, income level, age, and education level of head of household, household size and home size, are important factors in explaining the state of energy poverty in South Lunzu Township. . Households who spent more on schooling were also spending more on food items and their expenditure on energy resources was less than 10 percent of the total expenditure per month. The major recommendation of this study is that campaigns emphasising on the abilities of Renewable Energy be developed and disseminated. Also there should be a deliberate effort to make cheaper sources of renewable energy like solar available to poorer townships

INTRODUCTION

Most households and industries in the Sub-Saharan Africa use traditional and unclean energy resources for many activities such as cooking, lighting and drying of farm produce. In Malawi currently household energy consumption accounts for 84 percent of the total energy used, the dominant energy source being biomass (99 percent) (NSO, 2012; GOM, 2006). The attainment of the Millennium Development Goals (MDGs) rests on the availability and access of affordable energy to all people. To achieve the MDGs and sustainable development in general, policies and strategies that will encourage the use of green energy both at the household and industrial level are important. Energy is important to eradicate poverty through improved education, health services and even provide employment to many people with a variety of skills.

The objective of this study was to analyse the state of energy poverty in an urban poor society environment. Specifically, the paper aimed at identifying the determinants of energy poverty in South Lunzu Township by first computing the energy poverty level and secondly econometrically analyse factors that determine its level.

LITERATURE REVIEW

Energy is a basic commodity in the same class as food, water and health. However, the majority of the population in Africa still cannot access it in its modern form (Biro, 2007). Energy poverty has been defined as the state of deprivation where a household or indeed an economic agent is barely able to meet at most the minimum energy requirements for basic needs (IEA, 2010; Modi *et al*, 2005; Foster *et al*, 2000). Many authors have provided the definition in theory but in practice they fail to agree on what exactly is the minimum level below which a household can be classified as being energy poor (Pachauri & Spreng, 2003; Pachauri *et al*, 2004; Mirza & Szirmai, 2010). The International Energy Agency believes that there is a minimum level of energy consumption for the rural areas on the one hand and urban locations on the other. For rural areas, the minimum

estimated comprises of two light bulbs, 5 hours of radio while for the urban areas with additional appliances such as television and refrigerator, the requirements would be higher (Foster et al, 2000). However, other important energy needs such as cooking, ironing, and washing are not included.

More and more efforts in modern times are leaning towards an investigation that should establish an energy poverty line. Authors such as Fahmy (2011), Foster et al (2000), and Pachauri et al (2004) have established an energy poverty line for specific areas based on techniques that are scientific from both engineering and economic sciences.

Using access as a method of determining whether a household is energy poor or not, many studies have shown that Africa is lagging behind in the provision of modern energy facilities. According to the International Energy Agency (2006), 554 million people did not have access to electricity in Africa in 2006. The SSA had the highest number of people without electricity at 547 million. This suggests that generally the SSA has the lowest electrification rate compared to the Northern Africa. Compared to Asia, Africa is still the lowest. This leads to a clear conclusion that energy poverty is more pronounced in the SSA than anywhere else in the world.

Poor countries have low energy intensity measured by the ratio of total amount of energy consumed to Gross Domestic Product (GDP). Low energy intensity levels are an indication that a country is consuming very low amounts of energy which might imply that access is also very poor. However, care has to be taken as low energy intensity figures might also be an indication of energy efficiency per unit of output.

RESEARCH METHODOLOGY

Random Sampling was used to collect survey data in Blantyre City's high density area of South Lunzu Township (SLT) which lies to the east of Ndirande Mountain. SLT has twelve sectors of which data was collected in areas Five, Six, Seven, Eight and Ten. Households were randomly chosen and in total, the survey collected data through questionnaire administration to 319 heads of household or their spouses.

South Lunzu Township is a relatively new area compared to other Townships around Blantyre. It emerged mainly due to its closeness to two main industrial areas of Chirimba and Limbe. It is therefore preferred by such people who work in the nearby industrial areas. Stratified random sampling was used to choose households from where respondents were drawn. If a head of household was not available, the spouse or partner was requested to respond to the questions. A semi structured questionnaire was given to the enumerators to be used for the collection of information. It had a set of questions on demographics (age, sex, and household size), socioeconomic aspects (employment, education, knowledge) and energy use. Discrete choice analysis using logistic models for binary were adopted to analyse determinants of energy poverty

Analysis of determinants of energy poverty

This study adopted energy expenditure methods to identify those energy poor households. Energy poverty measures calculated in this way are referred to as Economics Measures (Pachauri et al, 2004). In expenditure terms, a household is considered to be energy poor if 10 percent or more of its expenditure is on energy facilities (Fahmy 2011). This definition therefore demands a clear explanation and data on energy expenditure at the household level and total income.

Expenditure approach of measuring energy poverty

In this study expenditure on energy is calculated by adding together all the money-metric costs incurred to fetch energy facilities. These include:

- i. Transport cost to and from the place of fetching the energy facility;
- ii. Actual purchase cost of the facility;

The formula for this calculation is given by:

$$EE_{ij} = ETPT_{ij} + APC_{ij} \quad (1)$$

Where EEX_{ij} total expenditure on energy facility i by household j ; $ETPT_{ij}$ is transport expenses incurred towards the acquisition of energy facility i by household j ; and APC_{ij} is the actual purchase cost of energy facility i by household j . since the expenditure on transport as a recurrent activity mainly involves purchases of energy, ETPT includes therefore transport expenses the household incurred per month. For those who commute, bus fares are a direct function of the price of petrol and diesel on the energy market. Particularly, walking and cycling do not involve the use of energy whose cost can be quantified in monetary terms. For those who used cars for travel, the cost of petrol and diesel was added.

Empirical model of Energy Poverty

Those who were deemed to be energy poor were identified based on the energy expenditure budget of the household. Households whose energy expenditure budget exceeded 10 percent were regarded as being energy poor and therefore they were coded 1 and those who were spending less than 10 percent on energy facilities got a code of 0 (zero). A binary variable was consequently created which renders the reliance on Ordinary Least Squares (OLS) method of regression analysis unfit.

In the present case, one class of categorical models, a logistic regression, was estimated. This class of regressions use predictors to estimate probabilities that an event does or does not occur relying on similar inferential statistical methods as in OLS (Gujarati, 2004; Green, 2003). Theoretically, a decision maker, n , faces J alternatives. The utility that the economic agent obtains from alternative j can be represented as:

$$U_{nj} = V_{nj} + \varepsilon_{nj} \quad (2)$$

Where, U_{nj} is total utility; V_{nj} and ε_{nj} utility known by the researcher and stochastic utility, respectively. The logit function is obtained by assuming that each ε_{nj} is independently, identically distributed extreme value. The density for each unobserved component of utility is:

$$f(\varepsilon_{nj}) = e^{-\varepsilon_{nj}} e^{-e^{-\varepsilon_{nj}}} \quad (3)$$

and the cumulative distribution is given by:

$$F(\varepsilon_{nj}) = e^{-e^{-\varepsilon_{nj}}} \quad (4)$$

From this the following empirical model is suggested:

$$f(EPVY) = (\exp_tpt, \exp_food, \exp_sch, gender, educ, \exp_home, hhsize, hmsize, marital, a)$$

Consequently, an econometric analysis of the factors that influence the level of energy poverty in South Lunzu was performed relying on inferential statistical methods to interpret the results. A dummy variable, EPVY representing energy poverty was created taking on the value of 1 if a household was found to be energy poor and 0 otherwise.

RESULTS

Table 1 provides a summary of energy poverty statistics using the income or economics approach. From the table, 62 households representing about 19 percent of the sample were not energy poor. These households were spending less than 10 percent of their income on energy commodities including transportation. On the other hand out of a total of 319 households, 257 were found to be energy poor representing about 81 percent of the sample.

Table 1 Frequency for energy poverty

Energy Poverty Dummy Variable	Frequency	Percent	Cumulative frequency
Energy well-off	62	19.44	19.44
Energy Poor	257	80.56	100

Total	319	100	
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Source: Energy Poverty and Sustainable Development survey data, 2012.

When looking at the econometric analyses table 2 shows that there is a positive and statistically significant relationship between energy poverty and transport expenditure. The null hypothesis that the level of transport expenditure does not affect the level of energy poverty is therefore rejected at the 1 percent level of statistical significance. The results suggest that the odds ratio of 1.0008 was in favour of transport expenditure to increase the energy poverty level. In terms of elasticity as reported in table 2 the relationship between transport expenditure and energy poverty was inelastic. A 1 percentage increase in transport expenditure could increase energy poverty by 0.2 percent.

Table 2 Results of the Logit Model and elasticities

EPVY	Odds Ratio	ey/ex	z-score	P> z
exp_tpt	1.00081	0.2	5.75	0.000***
exp_food	0.9999	-0.49	-4.23	0.000***
exp_sch	0.99989	-0.19	-4.28	0.000***
Gender	1.20806	0.02	0.47	0.637
Educ	1.00925	0.02	0.15	0.881
exp_home	0.99997	-0.02	-0.58	0.562
Hhsize	1.21124	0.18	1.87	0.061*
Hmsize	0.99699	-0.03	-0.54	0.591
Marital	1.26664	0.11	1.66	0.097*
_cons	1.47712		0.43	0.665

Where *, **, and *** means statistically significant at the 10%, 5% and 1% level of significance.

There was a statistically negative relationship between food expenditure as represented by exp_food and energy poverty rejecting the null hypothesis of no relationship between the two. At 1 percent level of significance, the odds ratio predicts that households which spend more on food are likely to be better off in energy access. As table 2 shows, for every 1 percentage point increase in food budget, there is likely to be a 0.49 percentage decrease in energy poverty.

At 1 percent level of statistical significance, the null that there is no relationship between expenditure on education and energy poverty is. In terms of elasticity, the relationship is however inelastic as increasing education expenditure by 1 percentage points is likely to lower energy poverty by 0.19 percent. Said differently, low energy poverty levels are likely to be associated with higher expenditures in education for members of household as funds are released from spending on energy and the gains are moved towards improved and quality education.

There was a positive relationship between Gender and energy poverty although the association was statistically insignificant to reject the null hypothesis that there is no relationship between the two variables. The odds ratio however show that one is likely to be energy poor if they are male than female. Culturally men do not go to the forest to fetch firewood the way women do in Malawi and many other parts of Africa. The gender elasticity of energy poverty is inelastic at 0.02 percent. That means a 1 percent increase in males is expected to increase energy poverty by 0.02 percent.

At any level of standard statistical significance, education of the head of household could not be a statistically significant factor in explaining the behaviour of energy poverty in South Lunzu although there was a positive relationship between level of education and energy poverty. This result is strange considering that higher education levels are associated with higher income levels and therefore the energy share in the expenditure budget should be smaller.

There was a statistically insignificant relationship between home expenditure as represented by exp_home and energy poverty. Higher expenditures on accommodation were likely to be associated with lower energy poverty levels. In terms of elasticity an increase in home expenditure by 1 percent was likely to lead to a 0.02 percent decrease in energy poverty. Households that were spending higher amounts of their income on housing were likely to be less energy poor compared to those that were staying in low cost accommodations.

Household size represented by hhsiz had a statistically significant positive relationship with energy poverty at the 10 percent level of significance. The odds were that it was more likely for a household with more members to be energy poor than those with fewer members. The household size elasticity of energy poverty was inelastic at 0.18 implying that a 1 percent increase in household poverty was likely to increase energy poverty of the household by 0.18 percent.

There was a negative relationship between size of the dwelling unit as represented by hmsiz and energy poverty. The relationship however was statistically insignificant to suggest that the size of the dwelling unit (house) can be relied upon to explain the behaviour of energy poverty at the household level in South Lunzu. However although insignificant, the negative relationship suggests that households dwelling in larger houses were likely to be less energy poor compared to those living in smaller units.

On marital status which was represented by marital, the relationship was positive and statistically significant at the 10 percent level of significance suggesting that homes with married couples were more likely to be energy poor than those who were not.

CONCLUSION

South Lunzu Township is an energy poor stricken community with more than 80 percent of the households living below the energy poverty line. In this area, more than 40 percent of the households depend on biomass for their cooking needs. For those who have electricity, only less than 10 percent use it for both cooking and lighting, about 70 percent of the households did not rely on electricity for their cooking needs.

In terms of factors that affect the level of energy poverty which include expenditure on transport, income levels, age of the head of household, education level of head of household, household size and home size, relate differently. The results of this study shows that gender, expenditure on housing and marital status cannot be relied upon as important predictors of the probability of energy poverty in South Lunzu. Expenditure on education was associated with lower levels of energy poverty. Households who spent more on schooling were also spending more on food items and their expenditure on energy resources was less than 10 percent of the total expenditure per month. In addition, those households which spent more on food were also likely to be energy well-off. This could be explained in the sense that higher expenditures on food might imply that the household was also well-off in terms of income poverty.

REFERENCES

Bell, C. D., Roberts, R. K., English, B. C. & Park, W. M. (1994). A Logit analysis of participation in Tennessee's forest stewardship program. *Journal of agriculture and applied economics*, 26(2):463-472.

Birol, F. (2007). Energy economics: a place for energy poverty in the agenda? *The energy journal*, 28(3).

Cayla, J., Maizi, N. & Marchand, C. (2011). The role of income in energy consumption behaviour: evidence from French household data. *Energy policy*, 39(10):7874-7883.

Fahmy, E. (2011). The definition and measurement of fuel poverty. A briefing paper to inform consumer focus's submission to the Hills fuel poverty review, University of Bristol.

Foster, V., Tre, J. & Wodon, Q. (2000). Energy prices, energy efficiency, and fuel poverty. Infrastructure reform and the poor in the Latin America Region, World Bank.

- Foster, J., Greer, J., & Thorbecke, E. (1984). A class of decomposable poverty measures. *Econometrica*, 52: 761-66.
- Government of Malawi. (2003). National Energy Policy; Department of Energy Affairs, Lilongwe, Malawi.
- Government of Malawi. (2006). *Malawi Growth and Development Strategy 2006-2011*, Government Press, Zomba.
- Government of Malawi. 2009. *Malawi biomass energy strategy*. Government Press, Zomba.
- Government of Malawi – National statistical Office. (2012). Integrated Household Survey 2010-2011: Household socio-economic characteristics Report. NSO, Zomba.
- Gordon, D. (2011). Measuring fuel poverty. Second United Nations Decade for the eradication of poverty (2008-2017).
- Green, W. H. (2003). *Econometric Analysis*. 5th edn. Pearson Education International, Upper Saddle River, New Jersey.
- Gujarati, D. N. (2004). *Basic Econometrics*, 4th Edition. Mac Graw-Hill, London.
- Hasan, F. (2010). Energy for all: the missing Millennium Development Goal. In OFID Quarterly; Energy for all: the missing MDG. *OPEC Quarterly*, special edition on energy poverty, OPEC Fund.
- International Energy Agency (IEA) (2006). Annual energy outlook.
- Kambewa, P., Mataya, B., Sichinga, W. K. & Johnson, T. (2007). Charcoal: The reality. A study of charcoal consumption, trade and production in Malawi. Led by USAID-funded community partnerships for sustainable resource management in Malawi (COMPASS II).
- Kauffmann, C. (2005). Energy and poverty in Africa. Policy Insights No. 8 derived from the African Economic Outlook 2003/2004, a joint publication of the African Development Bank and the OECD Development Centre. www.oecd.org/dev/africanoutlook
- Khatami-Njenga, B. (2001). Upesi Rural Stoves Project, in: Misana, S. & Karlsson, G. (eds). *Generating opportunities: case studies on energy and women*. New York: UNDP. ISBN 92-1-26124-4.
- Manlove, K. (2009). Energy poverty 101, accessed from the Centre for American Progress website. http://www.americanprogress.org/issues/2009/05/pdf/energy_poverty_101.pdf
- Mirza, M. & Szirmai, A. (2010). Towards a new measurement of energy poverty: a cross-community analysis of rural Pakistan. United Nations Working Paper Series No. 2010-024.
- Modi, V., S. Mcdade, D. Lallement, & Saghir, J. (2006). Energy and the Millennium Development Goals. New York: Energy Sector Management Assistance Programme, United Nations Development Programme, United Nations Millennium Project, and World Bank.
- Nussbaumer, P., Bazilian, M., Modi, V. & Yumkella, K. K. (2011). Measuring energy poverty: focusing on what matters. *Oxford Poverty and Human Development Initiative working paper no. 42*, OPHI, Oxford Department of International Development, Queen Elizabeth House (QEH), University of Oxford.
- OECD & IEA. (2010). Energy Poverty: How to make modern energy access universal? *Special early excerpt of the World Energy Outlook for the UN General Assembly on the Millennium Development Goals*. September 2010.
- Pachauri, S., Mueller, A., Kemmler, A. & Spreng, D. (2004). On measuring energy poverty in Indian households. *World Development*, 32(12): 2083–2104.

Ping, C. J., Lee, K. L., & Ingersoll, G. M. (2002). An introduction to logistic regression analysis and reporting. *The journal of educational research*, 96(1).

Rio Group. (2006). Compendium of best practices in poverty measurement. Expert group on poverty statistics, Rio de Janeiro.

Townsend, P. (2006). Introduction: compendium of best practices in poverty measurement. Expert group on poverty statistics, Rio Group, Rio de Janeiro.

United Nations Millennium Project (UNMP). (2005). Energy Services for the Millennium Development Goals. New York: UNDP.

World Bank. (2009). Africa energy poverty. G8 Energy Ministers Meeting 2009 Rome, May 24-25, 2009.

SELF-GENERATED LIVELIHOODS AND POVERTY ALLEVIATION IN RURAL SOUTH AFRICA

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ABSTRACT

Rural poverty studies demonstrate that the best possible route for alleviating rural poverty is through poor people's self-generated livelihoods (Harrigan, 2008; Scoones, 1998). Rural households that venture into self-generated strategies have tended to generally generate employment, income and food at rates that alleviated their poverty conditions. To this extent, the value which rural livelihoods add to poverty alleviation depends on their ability to generate income and/or produce foods for households. In many developing countries, poor economic context in rural areas and legacies of colonialism have rendered severe and extreme poverty. These circumstances are typical to rural South Africa where the majority of people are vulnerable to such eventualities because of the legacies of colonialism and apartheid policies. South Africa is regarded as one of the countries that have progressed in terms of addressing socio-economic challenges of post-apartheid period. However, poverty has remained as a predominant challenge that numerous policies and strategies are formulated and implemented currently to address. Less has been achieved since poverty continued to affect the large majority of people in rural areas. Currently, households in rural areas across South Africa venture into various livelihoods activities to generate income and produce food to alleviate poverty. The paper argues that self-generated livelihoods are significantly contributing towards households' poverty alleviation in rural areas through food production and income generation. Therefore, the purpose of this paper is to assess the contributions of self-generated livelihoods as an intervention for household poverty alleviation in rural South Africa. Thus, literature review is used to establish the theoretical arguments of livelihoods as an approach to poverty alleviation and their capacity to generate income and produce food for poor people. The paper concludes that self-generated livelihoods contribute to household poverty alleviation differently depending on the nature of poverty that households experience and the type of livelihood(s) that they are practicing.

INTRODUCTION

Poverty is a common rural phenomenon in many developing countries. According to the World Bank (2007), rural poverty of developing countries accounts for about 75% of the world poverty and it is estimated that a billion individuals are affected by absolute poverty. Therefore, various poverty eradication policies are formulated and implemented by different countries across the globe to remedy the challenge of poverty in rural areas. However, the failure of some poverty alleviation policies has compelled a large number of poor people in rural areas to practice self-generated livelihoods to generate income and/or produce food for consumption and/or for commercial purposes (Mishra, 2007). The literature demonstrates that the contributions of self-generated livelihoods to household poverty will depend on the context of poverty, economy and environment where all these livelihoods are practiced (Foeken & Owuor, 2008). The practice of self-generated livelihoods is predominant in developing countries where poverty is severe and deep. Indeed, it is recognized that best approach for poverty alleviation in rural areas should involve poor people's self-reliance. Theoretically, the performance of rural self-generated livelihoods depends on the geographical, environmental and economic contexts of the area and the nature of poverty that households' experience (Ellis & Mdoe, 2003). Thus, some of the contexts marginalize livelihoods to the extent that their level of contributions does not alleviate poverty particularly in developing countries such as South Africa. The purpose of this paper is to assess whether self-generated livelihoods as an intervention contributes to household poverty alleviation in rural South Africa. In order to address this purpose, the paper firstly provide theoretical perspective of dimensions of rural poverty to

provide an understanding of various causes and conditions of poverty that are experienced in rural areas. Furthermore, the types and characteristics of self-generated livelihoods which are practiced by poor rural households are discussed. Finally, the paper provides a theoretical perspective as well as South African experience of self-generated livelihoods and poverty alleviation.

DIMENSIONS OF RURAL POVERTY

Rural poverty can be defined as a state or condition in which a person or community lacks the financial resources and essentials to enjoy a minimum standard of life and well-being that's considered acceptable in society (Robert, 2005). The concept of poverty comprises various dimensions that are wide, complex and the realities of it vary between regions, countries, communities and individuals (Niehof, 2004). The poverty dimensions are material and non-material and they interact and interlink with each other in a complex manner (Robert, 2005). Poverty dimensions that are material include lack of shelter, low income and food insecurity, while non-material dimensions include vulnerability, powerlessness and gender inequality and poor economic conditions and unemployment (Kepe, 2008). The combination of both material and non-material poverty dimensions worsen the conditions of poor people in rural areas by trapping them in a poverty cycle (Niehof, 2004). In most cases, the poor lack the capacity to liberate themselves from the shackles of poverty causing the conditions of extreme poverty to persist and to be transmitted from generation to generation (Pauw, 2007).

Material dimensions of poverty

Food Insecurity is the inability to access and possess sufficient food for consumption. Part of root cause of food insecurity in developing countries relate to the inability of people to gain access to food due to a lack of land for agriculture, unfavorable climatic conditions, over-reliance on primary agriculture, low fertility soils, minimal use of external farm inputs, environmental degradation, significant food crop loss both pre- and post-harvest, minimal value addition and product differentiation, and inadequate food storage (Gentle & Maraseni, 2012). Conversely, food insecurity additionally results from stresses such as natural disasters, wars, income variations, price volatility (Scoones, 1998). The large numbers of chronically undernourished people in the world today are testimony to the food insecurity of many households. For many households, food insecurity leads to hunger, malnutrition and when extreme it leads to a partial collapse of the socio-economic order and excess mortality famine (Kang & Imai, 2012)

Low Income is when households are unable to afford their basic necessities such as food, clothing, health services and education to obtain a decent life. Poor people consistently emphasize the centrality of work to improve their lives through income. The root cause of low income is unemployment. A country's overall wealth or economic growth is an important influence on the income of individual or households (Ferreira & Lanjouw, 2001). This can be evident with the experience of South Africa, while the economy in the country was constantly growing the number of unemployed people was reduced as more job opportunities were created. Economic contraction leads to the increase and persistence of income poverty. Households experience low income due to unemployment and inability to engage in any income generating activities. Income

Lack of infrastructure and services is a common character of underdevelopment in rural areas where the majority of people affected by lack of basic necessities such as, health services, shelters, water, sanitation and education (World Bank, 2007). This lack of essential services and infrastructure in rural areas deteriorate the standard of living and make poverty to increase and persist (Sanfo & Francaise, 2012). Moreover, shortage of health services, water and good sanitation affects the health of rural people, making them vulnerable to diseases, lower life expectancy and increases infant mortality (Zezza & Tasciotti, 2010). Lack of services and infrastructure create a cycle of poverty wherein the majority of poor people are trapped in and unable to move out.

Non-Material Dimensions Of Poverty

Vulnerability refers to exposure to contingencies and stress that households are unable to cope with. Vulnerability greatly contributes to household poverty in the sense that people are easily exposed to natural disasters, economic shocks and diseases, and; they are unable to cope, often lack access to resources, both

natural and social, and political power, to reduce their vulnerability (Zezza & Tasciotti, 2010). In addition, vulnerability trap people into a cycle of poverty that leaves them in worse conditions and exposed to shocks such as climate variability and fluctuations of micro and macro economy. Furthermore, economic disparity is likely to make some individuals, communities in developing nations more vulnerable to loss of jobs, experience low income leading to low purchasing power (Robert, 2005). Some of these factors are the real causes of poverty leaving people powerless to reduce or mitigate risk or cope with shocks as they are interlinked, intercepted and influencing each other. Additionally, poor people are also exposed to risks beyond their community that affects the economy, the environment, and the society in which they live (Park, Howden, & Crimp, 2012).

The concepts of *Marginalization, Powerlessness and Gender Inequality* are very close to each other and they contribute to household poverty (World Bank, 2007). These three non-material dimensions of poverty are related to lack of resources as well as social exclusion from participation in decision making, social services and economic activities (Kepe, 2008). Rural areas are often politically marginalized more specifically women that result in high prevalence of poverty experiencing low income levels, vulnerability, voicelessness and powerlessness (World Bank, 2007; Kepe, 2008). Women are mostly affected by gender inequality, marginalization and lack of power especially those residing in rural areas of developing countries. Poor rural people have less power to take advantage of new economic opportunities or engage in activities outside their immediate zone of security. Social norms and barriers can also contribute to voicelessness and powerlessness. While local cultures have intrinsic value and can sometimes be inimical to reduce human deprivation since men are given more preference in rural areas than women in terms of resource distribution (Veldeld, Juman, Wapalila & Songorwa, 2012).

Poor Economic Conditions and Unemployment are closely interlinking concepts that thought to have direct effects on income poverty. Unemployment is a significant contributor to household poverty and impoverishes a large number of people regardless of race or gender (Kepe, 2008). Poor economic conditions compel large proportion of poor people in rural areas who are unemployed to engage themselves in livelihoods activities (mostly informal) to generate income and/or produce food for subsistence or commercial purposes (Niehof, 2004). Poor economic conditions created less employment opportunities for poor people in rural areas result in low income and poverty.

TYPES AND CHARACTERISTICS OF SELF-GENERATED LIVELIHOODS

Rural livelihoods take a variety of forms; and, they are broadly categorized as income-generating and food-producing livelihoods. Income-generating livelihoods are practiced by people to increase income of the household and widen their choices as well as their purchasing power (Carter & May, 2001). Conversely, food-producing livelihoods are established mostly by rural households who are experiencing food insecurity and possessing arable land (Lanjouw, 2001). However, people assume that livelihoods are dominating in rural areas, it has been demonstrated by various rural poverty studies that even in urban areas people are experiencing poverty and the situation compels them to establish their own livelihoods activities mainly for income generation purposes (Park *et al.*, 2012). This section discusses the two broad categories of rural livelihoods which are income-generating and food-producing to establish the models of each livelihoods category and their processes of generating income and producing food for poor households in rural areas of South Africa.

Income-generating livelihoods

Income-generating livelihoods include labour migration that generates remittance for households and businesses such as car repairing, welding, fruit and vegetable selling, livestock selling, petty cash commodity and, street hawking, spaza shop, shoe repairing and salon (Bhandari & Grant, 2007). Other businesses include supermarkets, general dealers and taverns which may be categorized under medium or small businesses depending on their annual turnover. These businesses buy products in bulk and sell them to people within the community of operation and other communities for profit. Formal businesses are thought to generate more income by selling different products such as food, clothing, and various equipment that enable owners to increase household income and alleviate poverty (Ferreira & Lanjouw, 2001). Income-generating livelihoods

such as car repairing, welding, fruit and vegetable selling, livestock selling, petty cash commodity, street hawking, spaza shop, shoe repairing and salon operate differently from each other and the levels of contributions to households varies (Zezza & Tasciotti, 2010).

Food-Producing Livelihoods

There are three broad categories of food-producing livelihoods namely: crop production, livestock farming and horticulture. Crop Production can be divided into 10 categories: grain crop, food grain legumes, seed crops, root and tuber crops, sugar crops, fibber crops, tree and small fruits, nut crops, vegetables, and forages (for support of livestock pastures and range grazing lands for hay and silage crops) (Zezza & Tasciotti, 2010). However, majorities of poor people in rural areas cultivates crops for food consumption and/or sell to generate income. These crops are cultivated in arable land on different seasons. Fibber crops, sugar crops, root and tuber crops are harvested and sold to manufacturing companies to be processed into final goods for consumption. Conversely, small fruits, nuts crops and vegetable are harvested when ready for consumption. Livestock livelihoods involve farming of cattle, pigs, goats, chickens, donkeys, and sheep among others (Rigg, 2006). Livestock are generally kept in an enclosure, fed by human-provided food and are intentionally bred but some livestock are not enclosed but are fed by access to natural foods by allowing them to breed freely (Rigg, 2006). Availability of water, good grazing lands and animal diseases are some of the factors that influence the enclosure and disclosure of animals. Livestock serve as livelihood when households sell to generate income or slaughter them to acquire food such as meat and milk (Stifel, 2010). Horticulture includes activities such as gardening of fruits, vegetable and flowers. These types of livelihoods differ in terms of characteristics, practices and their outcomes are influenced by seasons (Pauw, 2007). Fruits and vegetable gardening livelihoods are predominant in rural areas while flower gardening is common in urban areas. Fruits gardening livelihoods include mangoes, oranges, strawberry, pawpaw and grapes among others. Vegetable gardening involves spinach, onions, tomatoes, green and red peppers and potatoes. Additionally, horticulture has various sectors such as plant propagation and cultivation, crop production and plant breeding (Zezza & Tasciotti, 2010). Moreover, horticulture focuses on plant cultivation including the process of preparing soil for the planting of seeds, tubers, or cuttings (Stifel, 2010). Fruits and vegetable are cultivated, harvested, sold and/or consumed in different seasons during the year in attempt to increase household food and income. However, the practice of these livelihoods varies due to geographical location.

A THEORETICAL CONSIDERATION OF SELF-GENERATED LIVELIHOODS APPROACH

Theoretically, self-generated livelihoods are globally acknowledged as potential approaches for households' poverty in rural areas of developing countries (Carter & May, 1999). Given the adverse conditions of poverty that prevail in rural areas, livelihoods have continued to play a significant role for households in producing foods and generate income (Chianu & Ajani, 2008). Self-generated livelihoods do not only provide the household with food that would otherwise have to be purchased at the market (thus at the same time saving money that can be spent on other basic necessities), it often gives them a monetary income as well by selling some of the produced goods (Stifel, 2010). However, there is no consensus on the issue of whether food-producing livelihoods are the most appropriate strategies to fight poverty in developing countries compared to income-generating livelihoods (McDowell & Hess, 2012). Theory has demonstrated that the contributions of food-producing and income generating livelihoods vary since there are factors such as economic opportunities which provides households access to market for their products as well as creating a platform for expansion to generate more income (Machete, 2004; Asenso-Okyere, 2008).

There are factors which includes environmental that influence the performance and outputs of food-producing livelihoods. Therefore, when the environmental conditions are not propitious for certain seasons it might negatively affect the performance of livelihoods (Machete, 2004). Thus, in some rural areas self-generating livelihoods are making huge contributions to household poverty while other households are sinking deeper into poverty due to poor performance of other livelihoods (Ellis, 2000). However, recent research also indicates that rural livelihoods are now thought to be more dynamic and important than previously believed (Radeny, van der Berg & Schipper 2012; Jagger, Luckert, Banana & Bahati, 2012). Food-producing and income-

generating livelihoods are positively accepted and gained grounds as poverty alleviation strategies by copious households. Indeed, literature has demonstrated the effectiveness of livelihoods as poverty alleviation strategies as various studies globally have shown their reliability and efficiency in diminishing powerlessness and reducing poverty by providing poor people with income and food (Aguero, Carter & May, 2007).

SELF-GENERATED LIVELIHOODS AND POVERTY ALLEVIATION IN RURAL SOUTH AFRICA

The concept of livelihoods has become increasingly popular in development thinking as a way of conceptualizing the economic activities that poor people undertake in their areas. The focus of development thinking in the 1970s on economic growth and employment creation has given way to the realization that while job creation continues to be one important strategy for poverty alleviation. The reality for poor people is that survival and prosperity on household poverty alleviation depends on themselves by taking advantage of different opportunities and resources at different times (Niehof, 2004; Valdes & Foster, 2010). South Africa is regarded as middle income country; however, food and income poverty remains as a challenge to copious households particularly in rural areas. The majority of households in provinces that are predominantly rural and experiencing poverty are venturing into livelihoods activities to produce food and/or generate income.

Machete (2004) found that food-producing livelihoods are practiced purposely for household's consumption and contributes less to households' income and concluded that income-generating livelihoods are very significant as they provide poor people with various options and purchasing power. Income-generating livelihoods make significant contribution to the income of rural households in certain areas of South Africa. It is acknowledged that the performance of self-generated livelihoods vary from province to province and the type and performance of these livelihoods depends on various factors such as environmental, economic, social and rainfall patterns (Jagger, Luckert, Banana & Bahati, 2012). Self-generated livelihoods serve as a source of security and as a safety net for poor and vulnerable groups. It is argued that the availability of own-produced food for consumption provides a fallback in times of need. Thus, poor households produce more food for consumption and for commercial purposes. However, this perception of income generated from food-producing livelihoods as reliable seems misplaced, given the high-risks associated with farming in South Africa. Food production in South Africa has regularly been threatened by severe droughts, forever changing rainfall patterns as well as recurrent crop and livestock diseases (Machete, 2004). Given the risks that food production is associated with, large numbers of rural households prefer income-generating livelihoods since income provides them with a variety of choice and increasing their purchasing power (Radeny, van der Berg & Schipper, 2012). Income from self-generated livelihoods provides poor people with the opportunity to purchase adequate nutritious food that reduces their vulnerability to diseases that might lead to low life expectancy

The study by Anseeuw, Mathebula & Perret (2005) which was conducted in several rural areas in Limpopo Province including Mamone and Rantlekane, has demonstrated that food-producing and income-generating livelihoods are significant for large number of poor people particularly those who are unemployed and experiencing food insecurity. The majority of households practice income-generating livelihoods as they argue that income afford them more opportunities, options and they are able to use it for various purposes that will alleviate poverty. Conversely, food-producing livelihoods are also considered by numerous households as vital since it provides them with various types of food that in some seasons is more than enough and they are able to sell them to generate income. Theoretically, households which are overcrowded with individuals have more chance of experiencing worse conditions of poverty compared to those which have little number of members (Stifel, 2010). Large numbers of households that are overcrowded and experiencing income and food poverty are headed by females and relying on incomes from livelihoods and remittances from their spouse or family members who migrated to the cities in search of better opportunities (Aliber, 2003). As a result they are the one who experience severe poverty than those headed by males. The migration of people from rural areas in South Africa is influenced by poor economic opportunities and unemployment that they experience in rural areas. However, poor people who remain in rural areas practice livelihoods to produce sufficient food and income that increased their chance of alleviating poverty and experiencing more improved standard of living. Anseeuw, Mathebula and Perret (2005) concluded that, the role which self-generated livelihoods play is significant to the majority of poor households that are unemployed and experiencing food insecurity.

CONCLUSION

The failure or least achievements of various poverty alleviation strategies globally have pushed poor people in many developing countries to venture into different self-generated activities that could combat poverty (Blank, 1997). This paper has demonstrated variety of food-producing and income-generating livelihoods that poor households have adopted to alleviate poverty in rural South Africa. Moreover, poverty is yet been considered as a global challenge that manifests itself in various ways depending on the geographical location, environmental and economic contexts. The practice of self-generated livelihoods varies and their performance to poverty alleviations also differs as their contributions depends on the type of livelihoods households practice, outcomes and the nature of poverty that households are experiencing. The paper furthermore demonstrated that the practice of self-generated livelihoods is global and a large number of households are alleviating poverty through it. Additionally, livelihoods have reduced the dependency of poor people on the government to create opportunities for job and poverty alleviation particularly in rural South Africa. Various studies of livelihoods and poverty in South Africa have demonstrated that large numbers of poor households that engage in livelihoods manage to reduce poverty and improve their standard of living.

REFERENCES

- Aliber, M. (2003). Chronic poverty in South Africa: Incidences, causes and policies. *World Development*, Vol. 31, 473-490.
- Anseeuw, W., Mathebula, N., & Perret, S. (2005). *Poverty and livelihoods in rural South Africa: Investigating diversity and dynamics of livelihoods. Case studies in Limpopo*. Unpublished Report. University of Pretoria. South Africa.
- Asenso-Okyere, K. (2008). Improving livelihoods of rural people through agricultural research and development, with special reference to cocoa farmers in Ghana. A public lecture for the 70th anniversary of the Cocoa Research, Institute of Ghana.
- Aguero, J., Carter, M. & May, J (2007). Poverty and Inequality in the First Decade of South Africa's Democracy: What can be Learnt from Panel Data from Kwazulu-Natal? *Journal of African Economies*, Vol. 16, No. 5, 782-812
- Bhandari, B. S. & Grant, M. (2007). Analysis of livelihood security: A case study: in Kili-khola watershed of Nepal. *Journal of Environmental Management*, Vol. 85, No. 1, 17-26.
- Blank, R.M. (1997). *It takes a Nation: A New Agenda for Fighting Poverty*. Princeton NJ: Princeton University Press.
- Carter, M.R, & May, J. (1999). Poverty, livelihoods and class in rural South Africa. *World Development*, Vol. 27, 1-20.
- Carter, M., & May, J. (2001). One kind of freedom: poverty dynamics in post-apartheid South Africa. *World Development*, Vol. 29, No. 12, pp. 1987–2006.
- Chianu, J.N. & Ajani, O.I.Y (2008). Livelihoods and rural wealth distribution among farm households in Western Kenya: Implications for rural development, poverty alleviation interventions and peace. *African Journal of Agricultural Research*, Vol. 3, No. 7, 455-464.
- Ellis, F. (2000). *Rural livelihoods and diversification in developing countries*. New York: Oxford University Press.
- Ellis, F. & Mdoe, N (2003). Livelihoods and rural poverty reduction in Tanzania. *World Development* Vol. 31, No. 8, 1367-1384.

- Ferreira, F.H.G. & Lanjouw, P. (2001). Rural nonfarm activities and poverty in the Brazilian Northeast. *World Development*, Vol. 29, No. 3, 509-528.
- Foeken, D.W.J. & Owuor, O.S. (2008). Farming as a livelihood source for urban poor in Nakuru, Kenya. *Geoforum*, Vol. 39, 1978-1982.
- Gentle, P. & Maraseni, T.N. (2012). Climate change, poverty and livelihoods: Adaptation practices by rural mountain communities in Nepal. *Environmental Science and Policy*, Vol. 21, 24-34.
- Harrigan, J. (2008). Food insecurity, poverty and Malawian Starter Park: Fresh start or false start. *Food Policy*, Vol. 33, 237-249.
- Jagger, P., Luckert, M.K., Banana, A. & Bahati, J. (2012). Asking questions to understand rural livelihoods: Comparing disaggregated vs. aggregated approaches to household livelihood questions. *World Development*, Vol. 40, No. 9, 1810-1823.
- Kang, W. & Imai, K.S. (2012). Pro-poor growth, poverty and inequality in rural Vietnam. *Journal of Asian Economics*, Vol. 23, No. 5, 527-539.
- Kepe, T. (2008). Beyond the numbers: Understanding the value of vegetation rural livelihoods in Africa. *Geoforum*, Vol. 39, 958-968.
- Lanjouw, T. (2001). Nonfarm employment and poverty in rural El Salvador. *World Development*, Vol. 29, No. 3, 529-547.
- Machete, C.L. (2004). *Agriculture and Poverty in South Africa: Can Agriculture Reduce Poverty?* Pretoria: University of Pretoria.
- Mishra, S. (2007). Household livelihood and coping mechanism during drought among Oraon tribe of Sundargarh District of Orissa, India. *Journal of Social Science*, Vol. 15, No. 2, 181-186.
- McDowell, J.Z. & Hess, J.J. (2012). Accessing adaptation: Multiple stressors on livelihoods in Bolivian highlander under a changing climate. *Global Environmental Change*, Vol. 22, No. 2, 342-352.
- Niehof, A. (2004). The significance of diversification for rural livelihood systems. *Food Policy*, Vol. 29, No. 3, 321-322.
- Park, S., Howden, M. & Crimp, S. (2012). Informing regional level policy development and actions for increased adaptive capacity in rural livelihoods. *Environmental Science and Policy*, Vol. 15, No. 1, 23-27.
- Pauw, K.W. (2007). Agriculture and Poverty: farming for food or farming for money. *Agekon*, Vol. 46, No. 2, 195-218.
- Radeny, M., van der Berg, M. & Schipper, B. (2012). Rural poverty dynamics in Kenya: Structural decline and stochastic escapes. *World Development*, Vol. 40, No. 8, 1577-1593.
- Rigg, J. (2006). Land, farming, livelihoods and poverty: Rethinking the links in the rural south. *World Development*, Vol. 34, No. 1, 180-202.
- Roberts, B. (2005). *Empty stomachs, empty pockets: Poverty and inequality in post-apartheid South Africa*. Cape Town: HSRC Press.
- Sanfo, S. & Francaise, F. (2012). Public policies for rural poverty alleviation: The case of agricultural households in the Plateau central area of Burkina Faso. *Agriculture Systems*, Vol. 110, 1-9.

Scoones, I. (1998). *Sustainable rural livelihoods: A framework for analysis*. Institute for Development Studies, University of Sussex, Working Paper no. 72, Brighton, UK.

Stifel, D. (2010). The rural non-farming economy, livelihood strategies and household welfare. *World Development*, Vol. 4, No. 1, 174-194.

Valdes, A., & Foster, W. (2010). Reflection on the role of agriculture in pro-poor growth. *World Development*, Vol. 38, No. 10, 1362-1374.

Veldeld, P., Juman, A., Wapalila, G., & Songorwa A. (2012) Protected areas, poverty and conflicts: A livelihood case study of Mikumi National Park, Tanzania. *Forest policy and Economics*, Vol. 21, 20-31.

World Bank (2007) *Understanding Poverty*. www.worldbank.org [15/02/2010]

Zeza, A. & Tasciotti, L. (2010) Urban agriculture, poverty and food security: Empirical evidence from a sample of developing countries. *Food Policy*, Vol. 35, 265-273.

A HYBRID APPROACH USING ANALYTICAL HIERARCHICAL PROCESS AND CASE BASED REASONING FOR ORDER SCREENING MECHANISMS

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ABSTRACT

Under the customization production environment, the variation in the customized product specification often leads to problems in the enterprise such as an improper design or an uncoordinated manufacturing procedure that causes a much higher or loss. Therefore, enterprises will be able to take profits under control more precisely if they can tell whether the customer's order is acceptable and estimate the new product cost. In this study, customer's orders are evaluated by a two-stage model. First, the Analytic Hierarchy Process (AHP) is used for the initial screening of orders. In the acceptable orders, the Case-Based Reasoning (CBR) is used to pick up the case most similar to the new product case for the evaluation of product cost and price setting. At last, the PC product is used as an example to illustrate the proposed methodology.

INTRODUCTION

In the current few diverse product manufacturing environment, many enterprises have adopted the customization production strategy. In these enterprises, R&D departments are required to provide a more variety of products which not only cope with the individual customers' demands but also meet the cost and production requirements in the company. (Tseng et al., 2005). In such a customization production environment, product configuration management is a key issue. A product configuration is composed of various materials and components whose constitutions and required quantities are described in the bill of material (BOM). Tseng et al. (2005) applied the theory of case-based reasoning for the construction of product configuration. Fogliatto et al. (2012) made an overview regarding the studies on customization.

Zhang, et al. (2010) proposed an integrated order fulfillment process composed of four parts, including order processing, product configuration and process plan generation, production execution, and product delivery. During the order fulfillment procedure, many communication and coordination jobs among different sectors in a company are involved. Therefore, if we can solve the product configuration problem in the earlier stage of order fulfillment process, the burden the enterprise has to bear will be reduced. It is clear that the error rate of BOM will reduce if we can take advantage of the previous successful cases where modifications are made to cope with customized demands. In this study, the authors attempt to develop a customer order evaluation methodology under the customization environment. The customization order screen mechanisms are primarily dealt in two stages:

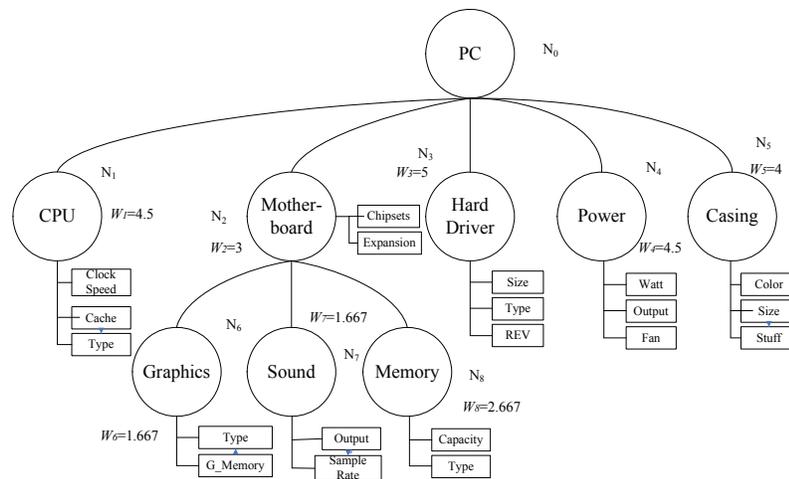
1. At Stage 1, the Analytic Hierarchy Process (AHP) is adopted for the initial order screening.
2. At Stage 2, for the accepted order, a previous case most similar will be picked up through Case-Based Reasoning (CBR).

PRODUCT FEATURES AND INITIAL SCREENING

Product Features

In this study, the product feature graph defined by product feature is used to describe the related configuration information in the customization environment. The so-called product feature represent the information property attribute such as the product form, function, quality characteristics, technical specification, and so on, which can serve as the reference for the product selection. As can be seen in Figure 1, the example of computer parts (<http://tw.asus.com/Desktop/Gaming/CG6191/>), the parent-child hierarchical relationship in the tree structure can express the relations between nodes and their sub-nodes. The nodes represent parts/ sub-assembly and N_i represents their part numbers. Feature attributes are terms used to describe the product characteristics. In the example of PC parts, the product features of PC to be chosen are nine modular parts and 20 features. And a code of CG6190 may be given after the identification of the order.

Figure 1: Product feature tree for PC



Initial Screening of Order

In this study, AHP is used for the initial screening of order. The steps is briefly listed below:

1. Set up the hierarchical structure according to the decision criteria and alternatives of the problem.
2. If there are n elements under the criteria, set up a $n \times n$ pairwise comparison matrix A.

$$(1) \quad A = \begin{bmatrix} 1 & a_{12} & \cdots & a_{1n} \\ a_{21} & 1 & \cdots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{n1} & a_{n2} & \cdots & 1 \end{bmatrix}$$

The values in Matrix A represent the relative importance between element i and element j . $a_{ij} = 1/a_{ji}$, and $a_{ij} > 0, i \neq j$.

3. The Maximized Eigenvalue (λ_{\max}) and its responding Eigenvector can be generated from the pairwise comparison matrix. The eigenvectors are generated from the normalization of the row average where the column elements are added and then normalized.

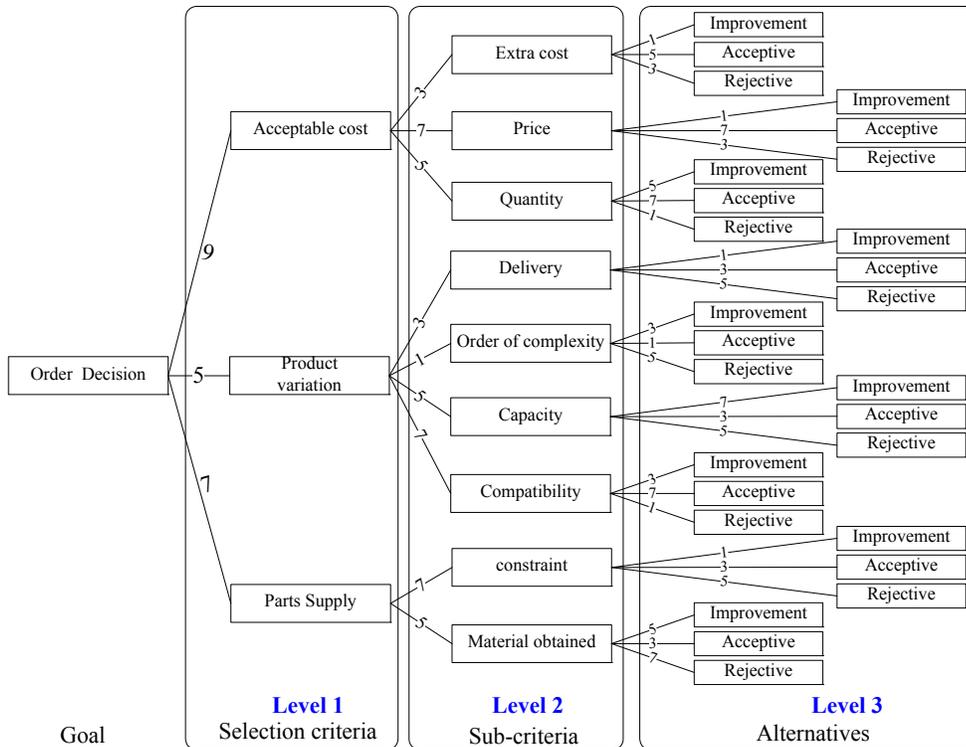
$$(2) \quad w_i = \frac{\sum_{j=1}^n a_{ij}}{\sum_{i=1}^n \sum_{j=1}^n a_{ij}}, \quad i, j = 1, 2, \dots, n.$$

The paired comparison matrix A is first multiplied by the eigenvector W to obtain a new vector W' (Formula (3)). Each W' is then divided by the original corresponding vector. At last, λ_{\max} can be obtained by Formula (4).

$$(3) \quad \begin{bmatrix} 1 & A_{12} & \dots & A_{1n} \\ 1/A_{12} & 1 & \dots & A_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ 1/A_{1n} & 1/A_{2n} & \dots & 1 \end{bmatrix} \times \begin{bmatrix} W_1 \\ W_2 \\ \vdots \\ W_n \end{bmatrix} = \begin{bmatrix} W'_1 \\ W'_2 \\ \vdots \\ W'_n \end{bmatrix}$$

$$(4) \quad \lambda_{\max} = \frac{1}{n} \left(\frac{W'_1}{W_1} + \frac{W'_2}{W_2} + \dots + \frac{W'_n}{W_n} \right)$$

Figure 2: Hierarchical structure for the PC order



4. Check the consistency. It is quite often that the strategy makers are not consistent in the pairwise comparison; therefore, a Consistency Index (C.I.) and Consistency Ratio (C.R.) are used to check whether there is the inconsistency phenomenon. Formula (5) and (6) illustrate the calculation of consistency:

$$(5) \quad C.I. = \frac{\lambda_{\max} - n}{n - 1}$$

$$(6) \quad C.R. = \frac{C.I.}{R.I.}$$

In which n is the number of criteria; λ_{\max} the maximize Eigenvalue; from different hierarchies of criteria matrix, different values of C.I. can be obtained, called Random Index (R.I.) whose values vary with

different numbers of n , as can be seen in the article by Saaty (1980). Through a group discussion, the evaluation criteria for the order of PC is listed in Figure 2.

Based on the selection criteria, the strategy makers set up the scores to evaluate the priority of the alternatives. At last, AHP method is used to generate the final priority of alternatives. The calculation of details is shown in Liao (2011). Consequently, according to the order specification of CG6190, it is suggested that the strategy makers adopt the strategy of order acceptance.

TWO-LEVEL WEIGHT AND CBR DESIGN

In the database of CBR, a two-level weight design is used to handle the feature tree in Figure 1. In this figure, a node is composed of nodes in its child layer and their feature attributes, the heterogeneity between the modified product and the old product can be generated from the two-level weight design algorithm.

(1) Calculate first level weights: Based upon the product feature units under each node, the decision maker can calculate the weights for product features using AHP method according to their relative importance.

(2) Calculate second level weights: This is designed according to the number of variance of feature attributes in each node and the hierarchical relationship among nodes.

The process of the weight for first level CBR is similar to Quality function deployment (QFD), originally designed to investigate the relationship rating between customer requirements and design conditions (Park et al., 1998). In this study, three levels of 1, 5, 9 are used to represent weak relationship, moderate relationship, and strong relationship respectively. The Absolute Importance Rating (AI) is calculated from (7):

$$(7) \quad AI_j = \sum_{i=1}^m W_i R_{ij}$$

AI_j : the absolute importance rating of a product feature, $i=1, \dots, m$.

W_i : weight for product feature, $i=1, \dots, m$ (calculated from AHP, refer to Table 10).

R_{ij} : the relationship rating between selection criteria and product feature, $i=1, \dots, m, j=1, \dots, n$.

m : number of the selection criteria for order.

n : number of product features.

Accordingly, the Relative Importance Rating (RI) can be calculated from the Absolute Importance Rating as Formula (8).

$$(8) \quad RI_j = \frac{AI_j}{\sum_{k=1}^n AI_k}$$

Formula (9) is used to calculate the second level weights of nodes W_i

$$(9) \quad W_i = [N_i / level]$$

W_i : weight of node.

i : code of node.

N_i : number of variants in each node.

$Level$: the hierarchy in the BOM tree structure; in the study, the level of root node is set to 1, and 1 is added for each layer from top to bottom.

INTEGRATED FRAMEWORK AND CBR ALGORITHM

The CBR algorithm for product specification is illustrated in Figure 3. Steps are described as follows:

Step 1: The customer selects the product specification according to the product configuration the company offers.

Step 2: The weights can be obtained through AHP method.

Step 3: Calculate two level weights. The first level deals with the weights of product features and the second level deals with the weights of part modules.

Step 4: Pick up the case whose similarity is highest from database.

Step 5: Estimate the order cost from the most similar case.

By CBR, several cases of highest similarity will be compared and retrieved from the case library. If f_{ij}^I represents the j th feature of i th clusters of nodes in the input Case (I), f_{ij}^R represents the j th feature of i th clusters of nodes in Case Library (R), and $S(f_{ij}^I, f_{ij}^R) \in [0,1]$ represents the function of similarity, a similarity of 1 will be assigned if $f_{ij}^I \equiv f_{ij}^R$ and a similarity of 0 will be assigned if $f_{ij}^I \neq f_{ij}^R$. With the similarity coefficients and comparison algorithm, a case closest to the customized order can be retrieved from the library database.

$$(10) \quad S_{N_i} = \sqrt{\sum_{j=1}^n w_{ij} S(f_{ij}^I, f_{ij}^R)}$$

$$(11) \quad S_{I,R} = \frac{\{\sum_{i=1}^m W_i S_{N_i}\}}{\sum_{i=1}^m W_i}$$

In Formula (10), the calculation of w_{ij} comes from the first level weight and in Formula (11), W_i is generated from the second level weight, $i=1$ to m . The Variable Cost Rate (VCR) is calculated by Formula (12).

$$(12) \quad VCR_j = \sum_{i=1}^m w_i \times CR_{ij}$$

w_i : the i th weight for product feature cost.

CR_{ij} : the Cost Rate of the i th feature of j th nodes, adapted by Martin and Ishii (2002).

m : the total number of product features.

The new product cost is calculated by the following formulas:

$$(13) \quad NC_j = CC_j \times (1 + VCR_j)$$

$$(14) \quad NC = \sum_{j=1}^n NC_j$$

NC_j =the new case cost of j th Node modules.

CC_j =the Case Cost (CC) of the j th Node modules.

A PRACTICAL EXAMPLE

In this study, the PC example illustrated in Figure 1 is used to illustrate the algorithms and Boland C++ was used for the programming. The programming performs under the following specifications: Microsoft Windows XP system, Intel(R) Pentium(R) 4 CPU 3.60GHz, Memory 1526MB. The algorithm is listed below:

Step 1 Discuss the specification and confirm the final order.

Step 2 Conduct the initial order screening. As a result, accept the order under the code of CG6190.

Step 3 Calculate two level weights.

Figure 3: Flow chart of product specification and cost setting

Step 4 The output of comparison is shown in Figure 4, where the circular nodes indicate the node modules, and rectangles indicate the feature nodes. When the feature nodes are identical in the comparison, the same features and node modules will be in a colorless way. In Figure 4, (a) CG6145 and (b) CG6190 are different in nodes of CPU, Hard disc and Memory, so these nodes are of gray scale and their corresponding feature nodes are filled in black. When the customized product CG6190 and a case in the library, CG6045, are picked for comparison where the dark gray parts indicate their differences.

Step 5 Estimate the order cost. The cost variation rate (*VCR*) is listed in Table 1. Add 1 to the cost variation rate and then multiply by the cost of modules of CG6145 and we can get the final cost of the customized product. $NC = NT\$24583.51$.

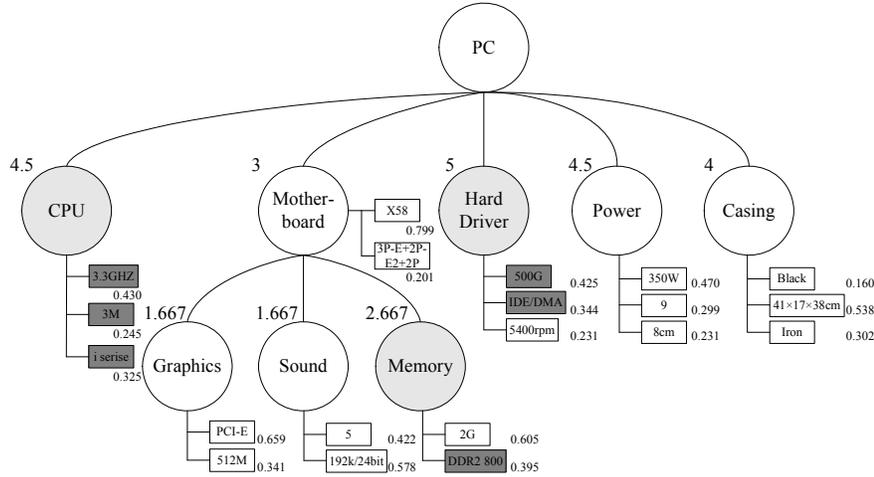


Figure 4: Differences in product features of the most similar case CG6145

Table 1 lists the estimate of new product cost. The total cost of the case CG6145 is NT\$20790. And the cost variation of CG6190 required from the customer’s order will have a total cost of NT\$24583.51. If a 10% of profit policy is made, the set price for the PC will be $24583.51 * (1 + 0.1) = NT\27041.861 .

Table 1: New product cost calculation

Modules Part features		cost weight	CPU	Mother board	Sound effect	Memory	Hard disc	Graphics	Power	Casing	Cost (NT\$)
			3900	2800	2250	2400	2350	3190	2000	1900	20790
CPU	clock speed	0.430	0.700								
	cache	0.245	0.300								
	Type	0.325	0.700								
Mother board	chips	0.799									
	Expansion	0.201									
Sound effect	Output	0.422									
	Smple rate	0.578									
Memory	size	0.605									
	Type	0.395			0.700						
Hard disc	capacity	0.425				0.500					
	Type	0.344				0.150					

	Speed	0.230					0.3				
Graphics	VGA card Type	0.659									
	Memory size	0.341									
Power	Wattage	0.470									
	Connector	0.299									
	Fan	0.231									
Casing	Color	0.160									
	Size	0.538									
	Material	0.302									
Cost variation rate(VCR)			0.602	0	0	0.276	0.334	0	0	0	
New product cost (NC)			6247.78	2800	2250	3062.8	3133.6	3190	2000	1900	24583.51

CONCLUSIONS

In the customized environment, accepting the wrong order will cause enterprises to fall into a hard situation in R&D, production and quality control. To solve such kind of problem, a more objective evaluation at the signing of order contracts is necessary. A two stage methodology for the solution is proposed in the study. In this study, AHP is first used to select orders, which are divided into acceptable, rejected, and revised ones. At second stage, two-level weight calculation and techniques related to Case-based Reasoning are adopted for the comparison of cases in the library on the basis of product feature tree structure. With these evaluation methods incorporated, strategy makers will have more sufficient information for the screening of customer's orders.

ACKNOWLEDGEMENT

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REFERENCES

- Fogliatto, F.S., da Silveira, G. J.C. and Borenstein, D., 2012, "The mass customization decade: An updated review of the literature", *International Journal of Production Economics.*, 138, 14-25.
- Liao, C.C., 2011, Applying case-based reasoning to cost assessment for customer orders in customization environment, Master dissertation in Industrial Engineering and Management, National Chinyi University of Technology, Taichung, Taiwan, ROC.
- Martin, M.V. and Ishii, K., 2002. Design for variety: developing standardized and modularized product platform architectures. *Research in Engineering Design*, 13, 213-235.
- Park, T. and Kim, K.J., 2004. Determination of an optimal set of design requirements using house of quality. *Journal of Operations Management*, 16, 569-581.
- Saaty, T.L., 1980. *The Analytic Hierarchy Process*. McGraw-Hill, New York.
- Tseng, H.E., Chang, C.C., and Chang, S.H., 2005. Applying case-based reasoning for product configuration in mass customization environments. *Expert Systems with Applications*, 29, 913-925.
- Zhang, L.L., Lee, C.K.M., and Xu, Q., 2010. Towards product customization: an integrated order fulfillment system. *Computers in Industry*, 61, 213-222.

SOUTH AFRICA IN BRICS AND THE GLOBAL AGRO-FOOD SYSTEMS: CONVENIENCE OR PRAGMATISM?

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ABSTRACT

Together with the Next-11 (N-11) grouping, BRICs was identified by Goldman Sachs as one of the two conglomerations of emerging economies on account of the large population sizes of the countries in question. In a somewhat hyperbolic way, the BRICs of Brazil, Russia, India and China was heralded as one of the future growth centres with potential to stimulate increased income elasticity of demand for a wide range of commodities, including food. That is, buying power and global capital interests, rather than practical challenges facing member states, were paramount in the conception of the BRICs. Given their large populations and attendant potential to expand buying power, China, India and Russia were recently forecast to be on the verge of substantially increasing their expenditure on imported agri-food. The paper concludes that South Africa's self-selection and ceding of membership of the BRICS is for conceptual convenience rather than a pragmatic strategic option to gain capabilities necessary for resolving domestic food insecurity challenges.

INTRODUCTION

The significance of the power of emerging markets (re)structuring global governance has been increasingly recognized over the previous decade, with China, India, Brazil, South Africa and Mexico, self-described as the G5 of “big emerging states” (Cooper, 2009). But the G5 was overshadowed by the now famous BRICs, conceived by Jim O’Neill of the Goldman Sachs in 2001 to club together Brazil, Russia, India and China on the assumption that as the economic growth in developed countries slowed down and that for developing countries continuing to be more rapid, increasing attention and global growth prospects would be focused on these emerging markets (Armijo, 2007; Cooper, 2009; Haq & Meilke, 2009a, 2009b; Tandon & Shome, 2009; Wilson, Kelston & Ahmed, 2010; Bell, 2011; Kimenyi & Lewis, 2011; Shaik & Narain, 2011; Cairns & Meilke, 2012). The BRICs is one of the two groupings of emerging economies identified by the Goldman Sachs since 2001; and, the second one identified in 2005 is named the Next-11, consisting of Bangladesh, Egypt, Indonesia, Iran, South Korea, Mexico, Nigeria, Pakistan, Philippines, Turkey and Vietnam (Haq & Meilke, 2009a, 2009b; Tandon & Shome, 2009; Page, 2011). South Africa was not part of the original conception of the BRICs nor the Next-11, because the two groupings were primarily selected on the basis of having large populations (Cairns & Meilke, 2012) with four core factors (macro stability, institutions, openness and education) that create the conditions necessary for achieving the growth as forecast (Bell, 2011). Instead, South Africa was included in the “self-described G5” of “big emerging states”, characterised by Cooper (2009) as the B(R)ICSAM. But the BRICs and Next-11 were heralded as the future growth centres with the potential to stimulate increased income elasticities of demand for a wide range of commodities, including food (Cairns & Meilke, 2012).

Whereas the acronym remained famous over the past decade, with South Africa ceding membership, “the strength of the BRICS weakened as the members displayed differential rates of growth in most macro indicators” (Tandon & Shome, 2009, p.273). One of the four factors that Goldman Sachs reported as core to the creation of conditions for the BRICs to achieve the growth predicted, is the adoption of economic freedom policies for “openness, specifically to trade and foreign direct investment” (Bell, 2011, p.20). Studies of income elasticities of import demand for agri-food products establish that the import behaviour of the BRICs and the N-11, as groups, is similar to that of other low-, middle- and high-income countries (Haq & Meilke, 2009a, 2009b;

Cairns & Meilke, 2012). These groupings do not show potential of transforming the global agri-food trade and agro-food systems and networks. In these two groupings, Cairns & Meilke's (2012) import demand model forecasts that only China, India, Indonesia, Russia, South Korea and Vietnam have the income and population capacity necessary to substantially increase expenditure on imported agri-food products. This eventuality would entail increased global food prices as the six countries expand their income elasticities of import demand for agri-food products. Given that South Africa is already a food importer, ceding membership of BRICS cannot be expected to create downward pressure on global food prices. Whereas South Africa is largely food insecure, its food production for exportation is severely limited and its income elasticity of import demand for agri-food products is statistically close to zero, amidst evidence that the potential of the BRICS influencing the global agri-food trade and agro-food systems is virtually non-existent (Haq & Meilke, 2009a, 2009b; Cairns & Meilke, 2012).

From the food security/insecurity perspective, South Africa's ceding of BRICS membership appears to be for sentimental convenience than pragmatism. The expectation that the BRICS states would adopt economic freedom policies for crossvergence (conforming, static or deviating) would in the final analysis enforce global openness. Cooper (2009) observes that whereas the BRICs share some common characteristics in their diplomatic styles, member states have been more marked for their differences, such as geographic location in dissimilar regions, unique historical circumstances and individual uniqueness, rather than a sense of collective identity. The inclusion of South Africa in BRICS should, therefore, provide for more traction to this observation. South Africa has experienced deficits in production and consumption of energy-intense foods, such as meat (Altman et al., 2009; Makhura, 2013). Using the 2005 National Food Consumption Survey (NFCS), Labadarios et al. (2008) estimate that 52% and 33% of South African households experienced hunger and risk of hunger, respectively. It is extrapolated from the NFCS that about 80% of households could not afford a basic nutritional basket of food at an average cost of R262 per person per month at the 2005 prices (Labadarios et al., 2008; Altman et al., 2009). Upward pressure on global food prices that could be precipitated by the expansion of income elasticities of demand for agri-food imports by some BRICS states would exacerbate South Africa's domestic food insecurity questions should be raised: is South Africa's ceding of membership of the BRICS for conceptual convenience or pragmatism? This question follows-up on Haq & Meilke's (2009a, p.3; 2009b, p.3) enquiry whether the changes in the global economic landscape precipitated by the entry of the BRICs "have the potential to change traditional patterns of global agri-food trade?" According to Cooper (2009: n.p), the BRICS is "more striking for its declaratory than operational force"; instead, it "sets up a scenario in which the relationship between the West and a big state component of the Rest is based on competition not cooperation". From the agro-food systems and agri-food trade perspective, there can be no competition because the very essence of the hyperbolic conception of the BRICS is grounded in four of its member states becoming elastic markets for agri-food imports from developed economies. The potential to precipitate increased demand for agri-food imports and, by implication, upward pressure on global food prices, renders South Africa's BRICS membership highly questionable given recent experiences of soaring food prices. Given that the BRICS would most likely evolve through combinations of conformity, static and deviating crossconvergence in different spheres, this grouping cannot be tenably expected to create competition that would reduce global food prices for emerging economies.

The supply-and-demand economic logic dictates that an increase in demand of commodities almost always precipitates upward pressure on prices under economic freedom policies, which are prescribed as core for the BRICS success. Recent drastic rise in food prices, together with the reality of excessive levels of vulnerability to food insecurity, should raise eyebrows about South Africa's motive for securing membership of the BRICS. This paper argues that the BRICs would not create capabilities to transform the global agro-food governance. The same logic of the BRICS success of more rapid growth, income elasticities of demand of agri-food imports of some member states, supports global capital interests and increased exportation from developed economies. The paper shows that one of the major practical challenges facing South Africa is the soaring food prices precipitated largely, if not exclusively, by the dynamics of the global agro-food systems and the discrepancies between capital accumulation and social regulation, exacerbated by supermarket chains expansionism into remote rural areas. The paper deduces that South Africa's membership of the BRICS exacerbates the severity of the exposure to a variety of global gyrations, including commodity price fluctuations, eloquently evidenced by the abrupt March 2013 80c increase on a litre of petrol. The paper concludes that South Africa's self-selection and ceding of membership of the BRICS is for conceptual convenience rather than for pragmatism as a necessary strategic option to gain capabilities for resolving domestic food insecurity challenges.

THE BRICS AND NEXT-11 IN THE GLOBAL AGRO-FOOD SYSTEMS AND AGRI-FOOD TRADE

The 2001 Goldman Sachs' conception of the BRICs, consisting of the four emerging markets of Brazil, Russia, India and China "that would become increasingly important in the world economy" (Haq & Meilke, 2009a, p.2; 2009b, p.2), did not include South Africa. The first BRICs summit in June 2009 in Russia on financial matters revealed a greater appreciation of this grouping's geo-political implications (Cooper, 2009; Tandon & Shome, 2009). The CIGI extended and accentuated the BRICs concept to encompass diplomacy by inclusion of Mexico and South Africa, to coin BRICSAM (Cooper, 2009). In the Goldman Sachs' "*Dreaming with the BRICS: the path to 2050*" and the follow-up of May 2010, respectively, Wilson & Purushothaman (2003) and Wilson, Kelston & Ahmed (2010) express hyperbolic projections of the potential of the BRICs states to dominate the global economy by, among other things, comparison with the G6 of France, Germany, Italy, Japan, United Kingdom and the United States. Conversely, Cooper (2009) raises concerns with BRICS' external and internal "club" competitions, respectively, between G8 and G20 as well as G8 and G5. Whereas all the BRICS states are members of the G20, only Russia belongs to the G8. However, as captured by Cairns & Meilke (2012, p.3), it is assumed that,

"The combination of higher economic and population growth in the N-11 and BRICs, coupled with a larger proportion of income spent on food in developing countries ... could translate into significant increases in expenditure on agri-food. The anticipated increase in agri-food expenditures has the potential to increase agri-food imports as consumers begin to diversify their diets and/or if domestic food production rises slower than consumption – an important development for major agri-food exporters facing stagnant growth prospects in developed country markets. In short, there may be gains to be had by agri-food exporters targeting these developing markets ..."

According to Haq & Meilke (2009a, p.11; 2009b, p.14) economic freedom policies "increase the importance of economic growth in expanding global agri-food trade". Rapid economic growth in emerging markets is expected to increase expenditures on imports of agri-food products because "income is an important determinant of trade in middle and high-income countries" (Haq & Meilke, 2009a, p.12; 2009b, p.14).

In their study, Haq and Meilke's (2009a; 2009b) estimate the impact per capita income growth of agri-food products trade using data for 52 countries and 20 agri-food products for 1990 to 2006. Cairns & Meilke (2012) use the import demand model to examine the influence of income on agri-food imports per capita expenditure in 63 countries and find that the BRICs and the N-11, as groupings, do not conduct imports differently from other low, middle, or high income countries. Of the N-11 and BRICS states, only China, India, South Korea and Vietnam were found to have significantly larger expenditure elasticities (Cairns & Meilke, 2012). Haq & Meilke (2009a; 2009b) find that the income elasticities of import demand for China, Russia and Brazil are more than that for India, which is "statistically equal to zero", in spite of the latter's economy growing faster than that for Brazil. The forecast growth of China, Russia, Brazil and India could potentially increase demand on food importation from developed countries, with the result that upward pressure on global food prices could be sustained, notwithstanding the realization of this grouping's ideals. That is, the gains for the agri-food exporters from the developed economies with the expansion of the agri-food expenditure in some of the BRICS and the N-11 states would involve two significant implications for emerging markets. First, the increased demand on the agri-food would precipitate upward pressure on global food prices. Second, targeting emerging markets by agri-food exporters from developed economies could undermine the domestic agro-food systems and agricultural development potential for food self-provisioning in emerging economies. Notwithstanding the startling appreciation of potential performance of the BRICs, Haq & Meilke (2009a; 2009b) question the potential of this grouping in impacting transformation of global agri-food trade and imposing downward pressure on global prices.

The 2008 global slowdown has indeed affected all economies, including those of the BRICs and the N-11 (Tandon & Shome, 2009). The probability of the global food price hikes remains realistic with the increased demand for agri-food imports and income elasticity, to which some BRICS and N-11 states would contribute hugely, if the economic growth forecasts (Wilson and Purushothaman, 2003; Wilson, Kelston and Ahmed, 2010) of the Goldman Sachs are realised. Whereas finding that "the income elasticities of import demand are higher in

middle-income countries than in high-income countries”, Haq & Meilke (2009a; 2009b) conclude that the elasticity estimates are greater only in China and Russia. Of the N-11 and the BRICS states, Cairns & Meilke (2012) forecast that the capacity of income and population growth to substantially increase imported agri-food products expenditure is discernible only in China, India, Indonesia, Russia, South Korea and Vietnam. China, Russia and India are the three core BRICS states. Logically, if the BRICS realises crossvergence of any form (conforming, static or deviating), it would still not resolve the challenge of soaring global food prices because these three member states and Brazil would potentially increase demand for agri-food imports and income elasticity due to their expanding populations.

Compared to the N-11, the BRICS is evidently weaker on the global stage. From both the income elasticity model and correlation statistics, the BRICS is found to be weaker and incapable of changing the import demand for global agri-food products trade (Haq & Meilke, 2009a, 2009b; Tandon & Shome, 2009; Cairns & Meilke, 2012). That is, as a grouping the BRICS would hardly be a bargaining tool to exert downward pressure on global food prices. Hence, Tandon & Shome (2009, p.275) conclude that analysis of correlation of the macro economic variables show that “the BRIC nations which were started as a common entity with similar trends in most macro-variables is no longer showing much unison”. There can be no hope that the BRICS would be able to transform the global agro-food systems and networks; importantly, Tendon and Shome (2009: 276) demonstrate with evidence that “the strength of the BRIC economies as a sustainable entity in the future is perhaps weaker”. Cooper (2009: n.p) sums the BRICS health as a grouping thus:

“In many ways, nevertheless, the BRICs are more interesting for their differences than their similarities. Brazil and India are robust democracies. Russia is a managed democracy. China is a one party state. India has a fast rising population. Russia is in serious demographic trouble with a sharply reduced life expectancy. Brazil and Russia are resource rich. India and China are resource dependent”.

That is, the capability for the BRICS states to attain conforming crossvergence in diplomacy is tenuous; and, the potential for the grouping to constitute an amalgamation bloc for agro-food systems and agri-food trade bargaining is negligible. Whereas the direct involvement of corporate agro-food capital in the farm production sector was limited, their indirect influence was exerted “through networks of marketing contracts, technical services and credit arrangements with independent farm businesses” (Whatmore, 1995, p.43). By the mid-1980s, the fiscal costs of maintaining the institutional foundations of the global agro-food system, especially its mode of food production, distribution and consumption, escalated dramatically because of a combination of financial interests in the agro-food sector, speculative trading in agricultural futures and corporate investment strategies (Whatmore, 1995). Consequently, the cumulative impact of these networks of the “off-farm” sector of industrialization of agro-food system was to compound the crisis in the industrial agro-food system, which has persisted globally (Whatmore, 1995).

GLOBAL AGRO-FOOD GOVERNANCE: CAPITAL ACCUMULATION AND SOCIAL REGULATION

The post-war restructuring of the agricultural production involved adoption of capital intensive farming methods, deep integration into the global networks of agro-technology and food industries through the “ties of technological dependence, debt and production contracts”, as well as highly skewed differentiation of food consumption (Whatmore, 1995, p.46). Equally, hegemonic neoliberalism purported global agro-food markets as practicable governance for the rural poor too, if the state allows market pricing mechanism to function without impediments (Jacobs, 2009). In practice, capital accumulation and social regulation coalesced into a nexus of global agro-food governance, which emphasises the agro-food sector restructuring dynamics generated by private sector search for profit and the state’s concerns with securing social order (Whatmore, 1995).

Capital Accumulation

Capital accumulation restructuring of global agro-food governance involves the “social, economic and technological ties between three sets of industrial activities”: those for food raising and farming as a rural land-use; agricultural science, technological products and services to farming; and, food processing and retailing (Whatmore, 1995, p.38). To this extent, “globalization of the industrial agro-food system” is metaphorically portrayed “as a lattice, or network, of locally embedded nodes in which transnational corporate agro-food capital

strategies are variably, rather than uniformly, articulated with farmers (and consumers) through specific regional compromises and institutions, and sectoral regimes” (FitzSimmons, 1990 cited in Whatmore, 1995, p.46-47). The interstices of these networks, rather than being “black holes” of the global agro-food governance, are “tangential spaces” and “sites of alternative strategies which build on traditional production practices centered on subsistence and ‘informal’ market networks, or are bound up with new social movements associated with non-agricultural or non-food issues” (Whatmore, 1995, p.47). The wider reorganization of capital accumulation involved deregulation and liberalization of the agricultural market environment into one riddled with frequent shocks and volatile food prices (Jacobs, 2008). A hegemonic discourse now serves capitalist class interests by overemphasizing that “private property and capital accumulation are essential to economic growth” (Gill, 1993 cited in Peet, 2002, p.57). Domestically, therefore, the integration of smallholder producers into the deregulated free markets exposes them to increased risks and uncertainties (Jacobs, 2008). Shocks operate synergistically with the prevailing structural conditions of globalised agro-food systems to sustain food insecurity and, at times, to deepen it. The ascendancy of agro-food markets has, as a result, meant that virtually all staple foods are priced according to the liberalized global pricing regime wherein “the instabilities of global prices” are transmitted directly into “domestic price fluctuations” (Jacobs, 2008, p.6). Simultaneously, capital-intensive commercial producers profit from the liberalised agricultural markets whilst smallholder producers and informal traders are squeezed out of business (Jacobs, 2008). The potential for four of the BRICS member states to create upward pressure on global agri-food prices and to erode domestic self-provisioning in the emerging economies cannot be discounted.

Social Regulation

If gaining wage income is a key route through which households escape hunger and malnutrition (Aliber, 2009), then food insecurity cannot be understood in isolation from other developmental questions such as social protection, sources of income, rural and urban development, changing household structures, health, access to land, water and inputs, retail markets, or education and nutritional knowledge (Altman et al., 2009), all of which are mediated through macro-policies and state interventions or lack thereof. Social regulation focuses on the role of global agro-food governance in the wider institutional fabric of politics and policy processes applied by nation-state or supra-national agencies to underpin agricultural markets through regulation of terms of trade and the food component of wage costs (Whatmore, 1995). Forecast of the BRICS growth is predicated on the adoption of economic freedom policies, which entail global openness, commonly associated with the curtailment of state activism for social regulation (Tsheola, 2013).

Capitalism “operates mainly through markets” with the “‘free markets’ form of speculation on stock exchanges, currency, and futures markets”; for these reasons, neoliberal development is “utterly unsuited to the conditions prevailing in post-apartheid South Africa” (Peet, 2002, p.59, 59, 65-66). Based on the principle of market efficiency, the global networks of agro-food accumulation have excluded rural agricultural products deemed to be marginal to the predominant mode of consumption, out of the “food regime” and “commodity chain” (Whatmore, 1995). Increasingly, “the language of ‘choice’ is at odds with ... widespread realities of food scarcity and uncertainty by those without the money-income to secure their basic needs through the market”, especially in emerging economies (Whatmore, 1995, p.36). In practice, the potential for BRICS as a grouping to transform the global agri-food trade patterns and the agro-food industry remains undetermined (Haq & Meilke, 2009a, 2009b; Cairns & Meilke, 2012). Haq & Meilke (2009a; 2009b) conclude that China and Russia strongly support the proposition that emerging economies are the agri-food import growth markets of the future. But the realization of this potential could simultaneously agitate for soaring global agri-food prices. Perhaps, the most adversarial, dramatic and long-lasting impact of the prominence of the global agro-food industrial governance has been the reorientation of the entire food production capacity of emerging economies away from staple foods to exportation crops and products (Makhura, 2013). Much agricultural production in emerging economies has increasingly been vertically tied into Western markets for unseasonal, luxury primary goods and bulk feed crops for intensive livestock production (Whatmore, 1995; D’Haese & Van Huylenbroeck, 2005; Makhura, 2013). Expansion of income elasticity of demand for agri-food imports in China, Russia, Brazil and India would most probably be satisfied by exports from developed economies, thereby deepening the undesirable vertical relations.

Food security for the majority of rural households in developing countries is a function of purchasing power, the ability to earn off-farm cash income and the food prices, which are determined by marketing efficiency and

distribution systems (Baiphethi & Jacobs, 2009). Inevitably, the calorific and food intake among poor rural people dropped as global food prices escalated, precipitating experiences of hunger, malnutrition and food insecurity. The 2007 global food price crisis caused a sharp increase of food insecure people in the world from 900 million to 1 billion (Labadarios et al., 2008; Aliber & Hart, 2009; Altman et al., 2009; Food & Agricultural Organization, 2009). By 2005 already, over 790 million people in emerging economies, mostly in Africa, and 34 million in developed economies experienced malnutrition, largely because they did not have enough food to eat (Oldewage-Theron et al., 2006). Additionally, there were 150 million malnourished children, 32 million of whom were in Africa (Oldewage-Theron et al., 2006). The potential of the four BRICS states' income elasticities of demand for agri-food imports from developed markets would exacerbate this impending crisis for emerging economies such as South Africa.

Appropriationism and Substitutionism of Food Products

The primary purpose of capitalist restructuring and industrialisation of the agro-food system was, therefore, to reduce “dependence on agro-food accumulation on ‘nature’” and to increase “the market size and value of agro-food products” (Whatmore, 1995, p.41-42). To this extent, commercialisation of agriculture involved “technological modification of biological processes in farming itself” as well as valorization of agricultural products “‘off-farm’ in the manufacture of technological farm inputs and the increased processing and packaging of food products after they have left the farm”, which grew through processes of appropriation and substitution (Whatmore, 1995, p.42). These processes exclude and undermine the rural poor’s food self-provisioning systems. Through appropriationism, elements that were once “integral to the agricultural production process” are extracted and transformed into industrial activities; and, are ultimately reincorporated into agriculture as inputs (Whatmore, 1995, p.42). Simultaneously, substitutionism reduces agricultural products to industrial inputs and replaces them by “fabricated or synthetic non-agricultural components in food manufacturing” (Whatmore, 1995, p.42). In the process of industrialisation of agro-food systems, most emerging economies were converted into net importers of “staple and processed foodstuffs” from Western economies (Whatmore, 1995). Fundamentally, the BRICS is founded on forecasts of increased consumerism and perpetuation of this status quo. Just like the economic system that informs its underlying assumptions (see Orrell, 2010), the global agro-food system is uneven and unstable, riddled with overlapping crises of production, regulation and legitimation which have adversarial consequences on food security status at all geographic scales (Whatmore, 1995). Recent hikes in food prices and changes in the global food situation (Hart, 2009) affirm interconnectedness with the volatility of foreign exchange rates, the import parity pricing, lack of tradability of locally produced food staples and variability of domestic production in escalating food insecurity. In South Africa too, “the ability to access food is strongly influenced by the broader context ... and (agro-food) systems or networks” (Hart, 2009, p.366).

To be precise, global deregulation of agricultural markets and withdrawal of agricultural subsidies have increased vulnerability of poor households to food insecurity (Drimie 2005; Jacobs 2009; Makhura, 2013). Despite deeply valuing farming and food self-provisioning, rural households are increasingly forced to seek for non-agricultural income sources due to the proliferation of cash needs (Drimie, 2005; Jacobs, 2009). Whereas the “articulation between farming and corporate sectors of the agro-food system” is complex and contested (Whatmore, 1995, p.45), bio-fuel production introduced new drivers of global food prices involving the reallocation of resources and outputs to the supply of feedstock, speculation in commodity markets and the power of agents within the agro-food chain, namely supermarkets, processors and distributors (Altman et al., 2009). For these reasons, household purchasing power is dependent upon market integration, pricing and marketing, that are intricately embedded with complex configuration of society, both historically, culturally, socially, economically, politically and geographically (Webb et al., 2006; Devereux, 2009; Drimie & Casale, 2009; Hart, 2009). Rural South Africa too is embedded with these longstanding, yet highly volatile, systems and networks of agro-food globalism, wherein household access to adequate food increasingly depends on the functioning of food markets and distribution systems rather than only on total agro-food output (Aliber & Hart, 2009; Altman et al., 2009). South Africa has deregulated maize, wheat and fruits production, marketing and distribution (Jacobs, 2008); and, the BRICS grouping would not create a supra-national agri-food trade and agro-food systems bloc to leverage power on global prices.

FOOD SECURITY CHALLENGES IN SOUTH AFRICA AND COMMODITY PRICES

Whereas there is no single universally regularised meaning and measure of food insecurity, (Altman et al., 2009), the majority of rural households in emerging economies such as South Africa have given up the fight against under-nutrition by placing greater emphasis on avoidance of hunger through intake of more grain products than energy-intensive foods (Drimie, 2005). Within the globalized agro-food systems, households' purchasing power, which is dependent on markets, marketing and pricing, is one of the key requirements to accessing nutritious food because it creates the possibility of meeting the dietary needs and preferences for healthy and active life (Webb et al., 2006; Devereux, 2009; Drimie & Casale, 2009). Most rural households in South Africa that previously achieved food self-provisioning through subsistence production have increasingly purchased most of their foods, just like the urban populations, from the market, consisting of about 90% of their supplies in some cases (Baiphethi & Jacobs, 2009). Simultaneously, upward pressure has been exerted on food expenditure of poor rural households, reaching between 60% and 80% of total household income (Baiphethi & Jacobs, 2009; Aliber, 2009). A Report by Oxfam, entitled *Growing a Better Future: Food Justice in a Resource-Constrained World* projects that the price of maize would likely increase by 180%, which would exacerbate the demand for increased food budgets in sub-Saharan Africa where already calorific intake is the lowest in the world (Tolsi, 2011, p.7). Raj Patel argues that the South African government has "made poor choices in its agricultural policies" which expose poor rural households to higher food prices (cited in Tolsi, 2011, p.7). Membership of the BRICS would not reverse this policy status because the founding conceptual justification identifies adoption of economic freedom policies as one of the core factors necessary for these states to grow more rapidly in the future.

Evidence show that, along with deregulation, the contribution of the agricultural sector to South Africa's Gross Domestic Product (GDP) declined from 20% in 1912 to about 3% in 2012 (Makhura, 2013). Whereas this shrinkage is more relative than absolute, the drop in the number of commercial farmers from 40 000 in 2007 to about 37 000 in 2012 (cited from Agricultural Census and Statistics South Africa, in Makhura, 2013) cannot be discounted as inconsequential. Simultaneously as the number of commercial farmers dropped, South Africa remained a net importer of wheat and meat (Makhura, 2013). Whereas South Africa was an exporter of maize to some African states, government's withdrawal of marginal lands from grain production and allocation for grazing and meat production in the 1980s has agitated for sharp reduction in grain production, especially maize which provides for the majority of the population's stable food (Makhura, 2013). Despite the substantial increase in the area allocated for grazing and meat production, development of the feedlot industry and the phenomenal growth in broiler production, South Africa has become "a net importer of meat" (Makhura, 2013, p.90) under the agricultural market reforms of 1984 and 1996. Consequently, the "rand weakness and sharply rising international oil prices pose the biggest risk to producer prices moving even higher" (*Business Day*, 29 August 2002, 30). On the basis of the 2000=100 index, the average producer and consumer prices of horticultural and food products, respectively, increased by about 140 and 100 percentage points between 1990 and 2007. The systemic structure underlying the pattern of price hikes has its origins in the global networks of food production, trading, marketing and consumption, which membership of the BRICS would exacerbate. The consistent increase in the percentage annual change in producer prices of domestically produced goods is reflective of the increased adoption of the transfer and import parity pricing by South African producers. The 2001 maize price crisis was a direct result of import parity pricing where a locally produced commodity was priced in dollars in accordance with world market prices. The sharp increase of the average prices of all vegetables sold on the fresh produce market in South Africa from R1 310/ton in 2000 to R2 500/ton in 2007 cannot be conclusively explained outside the global agro-food systems.

Since at least 2006, food prices have been responsible for driving inflation (Tolsi, 2011). Being a "wage good", maize has been integral to food-price sensitivity chain in South Africa and the global economy requires maize to produce beef, milk, cheese, chicken and eggs, just to name a few; and, Van Niekerk describes food and oil prices as the main stubborn culprits behind the production inflation pressures (*Business Day*, 29 August 2002). The escalation of the maize producer prices for South Africa by about 165 percentage points between 2000 and 2007, based on the 2000=100 index, cannot be understood outside the global commodity pricing dynamics and the introduction of the new global price drivers such as biofuels. The on-going agricultural products' producer and consumer price increases in South Africa are associated with reformed agricultural

market regime in the mid-1990s. In the absence of a convincing alternative interpretation, Raj Patel's conclusion that "the international food trading system" is the "real culprit" remains plausible, because the globalized agro-food system "discourages grain reserves, encourages the world to be dependent on a few grain-producing countries and requires oil-fuelled industrial agriculture" (cited in Tolsi, 2011, p.7). Food insecurity in rural South Africa, especially in the territories of the former Bantustans, cannot be explained outside the multifaceted agri-food trade and agro-food systems and networks. South Africa's membership of the BRICS, given that four members thereof have been demonstrated to hold the potential to increase income elasticities of demand for agri-food imports from developed economies, is not a pragmatic choice.

SOUTH AFRICA'S GOVERNANCE OF AGRICULTURAL MARKETS

Notwithstanding the interventions for upscaling and promotion of subsistence and small-scale emerging farmers, the simultaneous deregulation and liberalization of the agricultural industry thrust South Africa into the unforgiving global agro-food systems and networks that membership of the BRICS would most likely exacerbate. South Africa's domestic agri-industry is now locked with the global agro-food systems and networks. As a result, "domestic producer prices are also influenced by the international prices of commodities and the exchange rate" (Makhura, 2013, p.94). Within the BRICS, China and Russia would potentially expand their income elasticities of import demand for agri-food products, thereby contributing to the escalation of global food prices, adversely affecting the capability of most South Africans to be food secure. The Marketing Act of 1968 was repealed through the Marketing of Agricultural Products Act of 1996 which phased-out the agricultural control boards and deregulated the agri-industry (Makhura, 2013). The consequences of liberalization and deregulation of the agricultural markets is eloquently summed by the Land and Agricultural Development Bank thus:

"The boards' withdrawal created a vacuum in the marketing of agri-products. Individual farmers were required to market and export their own produce and could import freely. This created chaos in certain industries, as there was no coordination between exporters. Domestic interests were competing against each other in international markets" (Makhura, 2013, p.60).

Unavoidably, the composition of agricultural products produced, exported and imported has changed over the years whilst production of staple food products declined in relative terms (Jacobs, 2008, 2009; Traub & Jayne, 2008; Makhura, 2013). Presently, South African farmers are able to hedge grain prices through the South African Futures Exchange and/or presel to food processors and wholesalers (Jacobs, 2008, 2009; Traub & Jayne, 2008; Makhura, 2013). Since at least 2008, the South African consumers have endured soaring food prices arising from combinations of all these factors.

National sub-Hegemonic Agro-food Governance and Supermarket Chains Expansionism

South Africa's agricultural marketing policies have since 1996 sought to liberalize and deregulate the full agricultural value chain in an approach described as "big-bang", creating agro-food sub-hegemonic regional systems in which the most food-insecure households experienced perpetual risks and threats as the cost of their staples escalated drastically (Jacobs, 2008, 2009; Traub & Jayne, 2008). The 1984 White Paper on Agriculture imposed far-reaching market-oriented reforms; and, the Marketing of Agricultural Products Act No 47 of 1996 provided for a liberalization and deregulation template within which all other policies, including the 1997 Land Reform Programme, the 2001 Strategic Plan for Agriculture and the 2006 Broad Based Black Economic Empowerment in Agriculture (Agri BBBEE), unfolded (Jacobs, 2008, 2009; Traub & Jayne, 2008). Section 2 of the Act extends deregulation and liberalisation to all other spheres of agriculture (Jacobs, 2008, 2009). Together, Section 2(2) and 16 of this Marketing of Agricultural Products Act of 1996 thrust smallholders into agro-food globalism and agricultural export chains (Jacobs, 2008, 2009). Under this Act, and the National Agricultural Marketing Council (NAMC) it established, market forces were unleashed as the key drivers of agricultural business activity and resource allocation (DoA, 2001). The 2001 Strategic Plan for Agriculture merely endorses this market-oriented approach and accepts that supermarket chains have become dominant in the agro-food value chains where they are powerful in negotiating and determining producer prices, locally and internationally (DoA,

2001; Jacobs, 2008, 2009). With this governance, the focus of farming in South Africa “shifted from maximum output to producing quality produce for a particular market” (Makhura, 2013, p.94).

On the back of these reforms, supermarkets were able to expand into remote locations where they intensified competition over local demand, forcing poor households and smallholders to become net consumers, rather than producers, of food (Jacobs, 2008, 2009; Traub & Jayne, 2008). Whereas the initial effects were to lower food prices significantly, the ultimate destiny was upward price pressure as the local smallholders and households increasingly became net consumers simultaneously as the real wages stagnated or dropped (Jacobs, 2008, 2009). Thus, Altman et al. (2009) observe that a significant and increasing proportion of households are unable to afford the average nutritionally adequate food basket as food prices escalate and wage incomes fall. Evidently, the agricultural market reforms in South Africa have created a deeply competitive market structure exposing small-scale producers to the harsh globalized agro-food systems and networks (Traub & Jayne, 2008). Presently, only two food-retailing companies, Shoprite Checkers and Pick ‘n Pay, control about 80% of retail food sales in South Africa (Traub & Jayne, 2008).

Most developing countries, especially those in Africa, Asia and Latin America, have experienced the phenomenon of supermarket food chains expansionism into small remote rural towns; and, the largest expansion of supermarkets in Africa has occurred in South Africa (D’Haese & van Huylbroeck, 2005). This phenomenon has virtually created competition for local demand with informal traders and smallholder producers (D’Haese & van Huylbroeck, 2005). With rural South Africa being radically transformed through agricultural market reforms since 1984, the agro-food system converted poor rural households from net producers to net consumers of foods (Drimie, 2005; Jacobs, 2008, 2009; Baiphethi & Jacobs, 2009). The supermarket food chain has since the late 1990s dominated the local rural markets in South Africa; and, increasing proportions of rural households purchased foods from these networks, and this trend became predominant especially after 1994 (D’Haese & Van Huylbroeck, 2005; Jacobs, 2008, 2009; Baiphethi & Jacobs, 2009). Analysing Statistics South Africa’s (2007) 2005/06 Income and Expenditure Survey, it was found that 92%, 94%, 94% and 72% of black rural households purchased most of their grain products, meat, dairy products and vegetables from the supermarket chains and other formal retailers (Jacobs, 2008, 2009; Baiphethi & Jacobs, 2009). Only four main supermarket chains (Shoprite, Pick ‘n Pay, Spar and Woolworths), out of a total of 1 700 in South Africa, dominated the sector since 2005, controlling about 90% thereof (D’Haese & Von Huylbroeck, 2005). These supermarket food chains’ embeddedness with global agro-food systems and networks would be strengthened further as and when the BRICS states intensify, collectively and individually, their economic freedom policies for crossvergence.

In practice, supermarket food chains expansionism intensified the exposure of the poor rural households to hunger and malnutrition, by undermining subsistence and smallholder production. Most of the foods sold in the small rural towns’ supermarkets are imported into these localities. Hence, the primary effect of the hegemonic agro-food systems has been to sustain household food security “stressors” (Aliber, 2009). There is evidence of persistent annual deficits in the staple food maize and energy-intense meat between 1990 and 2007. Logically, importation of food can be expected to fuel price hikes due to import parity pricing (Hendriks & Maunder, 2006; Seekings & Matrass, 2006; Labadarios et al., 2008). The year-on-year food price increase rate of 16.7% in 2008 from a mere 6.7% of 2006 (National Agricultural Marketing Council (NAMC), 2009) cannot be halted through membership of the BRICS. Despite the drop of this year-on-year food price increase to 8.4% in 2009 (NAMC, 2009), food price escalations have continued with fluctuations in the global commodity prices, which the BRICS cannot transform. Von Braun (2007), Evans (2009) and Hart (2009) agree that it is highly unlikely that low food prices would ever return because of the irreversible changes in the global food system, the introduction of the new drivers of food demand, such as biofuels, supply and pricing. The upward trend in prices is evident in almost all of South Africa’s important foods, including grain products and vegetables.

CONCLUSION: SOUTH AFRICA’S BRICS MEMBERSHIP FOR CONVENIENCE OR PRAGMATISM?

This paper argued that the requirement for openness and economic freedom policies as one of the core factors for the growth of the BRICS would enforce subjugation of these countries’ domestic agro-food industries to global agro-food systems. The strife for confirming “crossvergence” among the BRICS states is destined to occur at the expense of other member states because, whereas there are some common features among these emerging

economies, there are also deep discrepancies to the extent that the Standard and Poor Report dismissed their recognition as a grouping (Tandon & Shome, 2009). Russia is divergent from the BRICS, China and India are on different growth trajectories (Tandon & Shome, 2009); and, the strength of the BRICS on the global stage remains questionable. Cairns & Meilke (2012, p.28) conclude that “as a group, the N-11 and BRICS are not unique in terms of their agri-food import demand elasticities”, but China, India, South Korea and Vietnam have large expenditure elasticities. It is forecast that by 2016 China would be the largest agri-food import market, followed by Russia, South Korea, India and Indonesia (Cairns & Meilke, 2012). Given the consumerism perspective underlying the conception of the BRICS, this paper argued that the rapid growth of income and increased demand for consumption of imported agro-food products by some states would place upward pressure on the already soaring global food prices and exacerbate the challenges of food insecurity for most emerging economies, including South Africa.

The paper insinuated that the stated economic ideals of the BRICS grouping are questionable, because there is suspicion that the 2003 and 2010 Goldman Sachs Reports are equally “peppered with subtle sales pitches” for global securitization (Bell, 2011, p.24). Notwithstanding the strength of the sentiment about BRICS, Jim O’Neill who coined the acronym appears to insinuate that its conception was influenced by the September 2001 terrorist attacks in the United States, which revealed the dangers of globalization being misconstrued as Americanization (Tandon & Shome, 2009). It is hoped that the BRICS’ “impressive population numbers would become the drivers of the future global growth” (Tandon & Shome, 2009, p.273). But the BRICS states are not monolithic in a variety of ways. According to Tandon & Shome (2009, p.273-274), the strength of Brazil and Russia is in “the natural resources”, whereas that for India and China draws out of their “fast consuming populations”. South Africa does not feature significantly in both cases. Importantly, there is competition among the BRICS states, externally between G8 and G20 as well as internally between G8 and G5 (Cooper, 2009), making for static or deviating crossvergence (Bell, 2011). As a result, the BRICS has remained “a sideshow to the main ‘club’ competitions” (Cooper, 2009: n.p). Whereas crossvergence of the BRICS began in the early 2000s, questions continue to be asked “whether BRIC performance influenced the Goldman Sachs report” or if the converse held in the short-term, at least (Bell, 2011, p.24). Consequently, the global agro-food systems and agri-food trade are real, rather than sentimental. The paper deduced, therefore, that South Africa’s ceding of membership of the BRICS would not transform the global agro-food systems and networks that have persistently created upward pressure on global prices. The escalation of food prices in South Africa confirms the validity of the interconnectedness of the hegemonic and sub-hegemonic agro-food systems, the new drivers of global food chains, as well as their impacts on local rural food insecurity (Von Braun, 2007; Hart, 2009). Hart’s (2009, p.365) observation is accurate in this regard:

“South African consumers experience the effects of changes in the global food system as well as those taking place in the local food chain.... (because the) processes of modernization and change (have strengthened) the linkages between households and complex commodity chains and economic networks Even the most remote rural households feel the impacts of certain global events and changes (political, economic, social and environmental)”.

In this context, the paper proposed that rural food insecurity, especially within rural South Africa, is perpetuated by stressors associated with the hegemonic and sub-hegemonic agro-food systems whose agents include supermarket food chains. The paper asserted the conclusion that, rather than create downward pressure on global agri-food prices, four BRICS states hold income elasticity potential to precipitate increase in the agri-food import demand, which would be served by the exporters from developed economies.

REFERENCES

- Aliber, M. (2009). Exploring Statistics South Africa’s National Household Surveys as Sources of Information about Household-level Food Security. *Agrekon*, 48(4), 384-409.
- Aliber, M. & Hart, T.G.B. (2009). Should Subsistence Agriculture be Supported as a Strategy to Address Rural Food Insecurity? *Agrekon*, 48(4), 434-458.
- Altman, M., Hart, T.G.B. & Jacobs, P. (2009). Household Food Security Status in South Africa. *Agrekon*, 48(4), 345-361.

- Armijo, L.E. (2007). The BRICs Countries (Brazil, Russia, India, and China) as Analytical Category: Mirage or Insight? *Asian Perspective*, 31(4), 7-42.
- Baiphethi, M.N. & Jacobs, P.T. (2009). The Contribution of Subsistence Farming to Food Security in South Africa. *Agrekon*, 48(4), 458-482.
- Bell, H.A. (2011). Status of the 'BRICs': an Analysis of Growth Factors. *International Research Journal of Finance and Economics*, 69, 19-25.
- Cairns, A. & Meilke, K.D. (2012). The Next-11 and the BRICs: are they the Future Markets for Agrifood Trade? *Canadian Agricultural Trade Policy Research Network (CATPRN) Working Paper 2012-03*, April 2012, Ontario: CATPRN.
- Cooper, A.F. (2009). Picking your Club: G8 or G20, BRICs or B(R)ICSAM? *Keynote Presentation at the BRICSAM and the Fight against Global Poverty*, Organised by the Oxfam International, Geneva, July 13, 2009.
- Devereux, S. (2009). Why does Famine Persist in Africa? *Food Security*, 1, 25-35.
- D'Haese, M. & Van Huylbroeck, G. (2005). The Rise of Supermarkets and Changing Expenditure Patterns of Poor Rural Households Case Study in the Transkei Area, South Africa. *Food Policy*, 30, 97-113.
- Department of Agriculture (DoA). (2002). *The Integrated Food Security Strategy for South Africa*. Pretoria: Government Printers.
- Drimie, S. (2005). Regional Vulnerability and Food Insecurity: Unraveling the Entangling Crisis? *Presentation to World Vision Round Table*, 08 March 2005, HSRC, Pretoria.
- Drimie, S. & Casale, M. (2009). Multiple Stressors in Southern Africa: the Link between HIV/AIDS, Food Insecurity, Poverty and Children's Vulnerability now and in the Future. *Aids Care*, 21, 28-33.
- Evans, A. (2009). *The Feeding of the Nine Billion: Global Food Security for the 21st Century*. London: The Royal Institute for International Affairs.
- Food & Agricultural Organization (FAO). (2009). *The State of Agricultural Commodity Markets*. Rome: FAO.
- Haq, Z. & Meilke, K. (2009a). Do BRICs and Emerging Markets Differ in their Agrifood Trade? *Paper presented at the International Association of Agricultural Economists Conference*, Beijing, China, August 16-22, 2009.
- Haq, Z. & Meilke, K. (2009b). The Role of Income Growth in Emerging Markets and the BRICs in Agrifood Trade. *Canadian Agricultural Trade Policy Research Network (CATPRN) Working Paper 2009-02*, February 2009, Ontario: CATPRN.
- Hart, T.G.B. (2009). Exploring Definitions of Food Insecurity and Vulnerability: Time to Refocus Assessments. *Agrekon*, 48(4), 362-383.
- Hendriks, S.L. & Maunder, E.M.W. (2006). Reflecting on the FIVIMS.ZA Pilot and Food Insecurity and Vulnerability: Modelling Approaches to Advise on Future Directions. Paper Presented for the World Food Programme, African Centre for Food Security, Pietermaritzburg.
- Jacobs, P. (2008). Market Development and Smallholder Farmers: a Selective Literature Survey. *Background Paper for the Second Economy Project*, October 2008, Pretoria: HSRC.
- Jacobs, P. (2009). The Status of Household Food Security Targets in South Africa. *Agrekon*, 48(4), 410-433.

Kimenyi, M.S. & Lewis, Z. (2011). The BRICS and the New Scramble for Africa. In Aryeetey, E., Asmah, E., Kimenyi, M.S., Lewis, Z., Mbaku, J.M., Moyo, N., Mutenyo, J., Page, J., Suruma, E.S. & Taiwo, O. (eds.) (2011). *Foresight Africa: the Continent's Greatest Challenges and Opportunities for 2011*. Brookings: Africa Growth Initiative at Brookings, pp.19-21.

Labadarios, D., Stewart, R., Maunder, E.M.W., Kruger, H.S., Gericke, G.J., Kuzwayo, P.M.N., Ntsie, P.R., Steyn, N.P., Schloss, I., Dhansay, M.A., Jooste, P.L., Dannhauser, A., Nel, J.H., Molefe, D. & Kotze, T.J.W. (2008). National Food Consumption Survey-Fortification Baseline (NFCS-FB-I) South Africa, 2005. *South African Journal Clinical Nutrition*, 21(3), 245-300.

Makhura, M. (ed.) (2013). *History of the Land Bank: Financing Agriculture for 100 Years*. Centurion, Pretoria: Land Bank Public Information Centre.

National Agricultural Marketing Council (NAMC). (2009). *The South African Food Cost Review, 2008*. Pretoria: NAMC.

Oldewage-Theron, W.H., Dicks, E.G. & Napier, C.E. (2006). Poverty, Household Food Insecurity and Nutrition: Coping Strategies in an Informal Settlement in the Vaal Triangle, South Africa. *Public Health*, 120, 795-804.

Orrell, D. (2010). *Economyths: Ten Ways that Economics Gets it Wrong*. London: Icon Books.

Page, J. (2011). Debilitating Borders: Why Africa cannot Compete without Regional Integration. In Aryeetey, E., Asmah, E., Kimenyi, M.S., Lewis, Z., Mbaku, J.M., Moyo, N., Mutenyo, J., Page, J., Suruma, E.S. & Taiwo, O. (eds.) *Foresight Africa: the Continent's Greatest Challenges and Opportunities for 2011*. Brookings: Africa Growth Initiative at Brookings, pp. 25-27.

Peet, R. (2002) Ideology, Discourse, and the Geography of Hegemony: from Socialist to Neoliberal Development in Post-apartheid South Africa. *Antipode*, 34(1), 54-84.

Seekings, J. & Matrass, N. (2006). *Class, race and Inequality in South Africa*. Pietermaritzburg: University of KwaZulu-Natal Press.

Shaik, R.R. & Narain, N. (2011). Comparative Analysis of Infrastructure PPP in BRICS Nations. *IPCSIT*, 20, 283-288.

Tandon, S. & Shome, S. (2009). The Cracks in the BRICs. *Annals of the University of Petrosani, Economics*, 9(4), 273-282.

Tolsi, N. (2011). Alarm Raised over Decline in Maize Crop. *Mail & Guardian*, 03-09 June, Johannesburg, p.7.

Traub, L.N. & Jayne, T.S. (2008). The Effects of Price Deregulation on Maize Marketing Margins in South Africa. *Food Policy*, 33, 224-236.

Tsheola, J. (2013). State Capitalism Meta-governance, State-capital Nexus and State Activism Paradoxes in the Gauteng Freeways. *Journal of Public Administration*, 48(1), 35-50.

Von Braun, J. (2007). *The World Food Situation: New Driving Forces and Required Actions*. Washington, D.C.: International Food Policy Research Institute.

Webb, P., Coates, J., Frongillo, E.A., Rogers, B., Swindale, A. & Bilinsky, P. (2006). Measuring Household Food Insecurity: Why it's so important and yet so Difficult to do? *The Journal of Nutrition*, 136(5), 1404-1408.

Whatmore, S. (1995). From Farming to Agribusiness: the Global Agro-food System. In Johnston, R.J., Taylor, P.J. & Watts, M.J. (eds.) *Geographies of Global Change: Remapping the World in the Late Twentieth Century*. Oxford: Blackwell, pp. 36-49.

Wilson, D., Kelston, A.L. & Ahmed, S. (2010). Is this the “BRICs Decade”? *BRICs Monthly* 10(3). New York: Goldman Sachs.

Wilson, D. & Purushothaman, R. (2003). *Dreaming with BRICs: the Path to 2050*. Global Paper 99, October 2003, New York: Goldman Sachs.

STATE-OWNED ENTERPRISES AND STATE CAPITALISM: SOUTH AFRICA'S DEVELOPMENT PATH DILEMMA?

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ABSTRACT

South Africa's development path continues to be contested; and, the trajectory followed since 1994 remains a moot point and difficult to categorise. However, there is evidence that a democratic South Africa has flirted with state capitalism, backed by a nuance hybrid of state-owned enterprises (SOEs). Whereas government has not conceded to this characterization of the post-apartheid development trajectory, the National Planning Commission recently released the National Development Plan (NDP) 2030 which acknowledges that South Africa has, far from political rhetoric, failed to create a developmental state. Nevertheless, the NDP 2030 sets the restructuring of SOEs as one of the "enabling milestones" for the creation of an ethical, capable and developmental state. The development dilemma, though, is that the few state-funded SOEs that have been awarded the status of "national champions" are expanding into the global business arena where they virtually operate like private multinationals. This paper delineates the dilemma of South Africa's development trajectory in order to demonstrate that whereas the state recognizes the need to address economic equity and social stability, it is heavily goaded by powerful free market capital interests through SOEs.

INTRODUCTION

Corporatization of state governance in the past 15 years has demonstrably thwarted scope for democratization of the politics and economics of most emerging markets (Tsheola, 2012a, 2013). As an emerging economy, a democratic South Africa has shifted from the apartheid Weberian state model to flirt with entrepreneurial and regulatory welfarism and then state capitalism (Tsheola, 2012a, 2013). Unsurprisingly, the discourse and political rhetoric of a South African developmental state has rung hollow over the past decade (Maserumule, 2012), leading to the National Planning Commission's (NPC, 2011, 2012) admission that such a state is yet to be established. The National Development Plan (NDP) 2030 Vision, therefore, provides for the establishment of an ethical, capable and developmental state that would successfully implement the national development agenda (NPC, 2012; Tsheola, 2013). In South Africa, such a state would lead development as transformation of the structures of poverty and inequality as well as imperative to redress colonial and apartheid legacies (Edigheji, 2010; Tshishonga & Mafema, 2010; Tsheola, 2012a). A democratic South Africa's state governance and transformation agenda require "policy coherence and co-ordination" for effective (re)allocation of resources, given the yawning developmental needs of the majority of the population (Edigheji, 2010, p.24; Tshandu, 2010, p.47). The hand that the state can capably manoeuvre in this regard is that of state-owned enterprises (SOEs).

The concept of state as a social relation, a site, a product and an agent of social and political struggles and transformation, eloquently demonstrates the reasons for the resurgence of SOEs on the global stage precipitating philosophically and ideologically. Equally, examinations of state governance and structuring of the nuance hybrid of SOEs would potentially provide invaluable insights about the development trajectories and varieties of capitalism adopted by emerging economies (Gabriel, 2003; Musacchio & Flores-Macias, 2009a, 2009b; Xu, 2010; Bacon, 2012; Yi-Chong, 2012; Musacchio, 2013). The South African state has incrementally substituted itself for society, thereby simultaneously creating a bloated welfare regime amidst a plethora of economic freedom policies. The implementation of the Growth, Employment and Redistribution (GEAR) in

1996, the pursuit of the Accelerated and Shared Growth Initiative for South Africa (AsgiSA) in 2006, and the recent New Growth Path and National Development (NDP) 2030 Vision hope to deregulate and liberalize markets (Tsheola, 2012b; Makhura, 2013). Following years of hollow pronouncements of the developmental state in South Africa's public administration corridors, the NDP 2030's hope of creating a capable and developmental state through SOEs as an "enabling milestone" raises philosophical and ideological questions about the state's role, the state-market paralysis and the variety of capitalism contemplated. Whereas the nuance hybrid of SOEs has the capability of supplementing the rules of the market through state power (Musacchio cited in Harvard Business School, 2013, p.3), questions of their objectives being public or purely financial are inconsequential because they are partly- or fully-state funded. But South Africa's "national champion" SOEs have persisted with their quest for increased autonomy and pursuit of "profit maximization". This paper delineates the dilemma of South Africa's development trajectory in order to demonstrate that whereas the state recognizes the need to address economic equity and social stability, it is heavily goaded by powerful free market capital interests as evidenced through major SOEs' conduct of business. The paper briefly draws indications from a few of South Africa's most prominent SOEs to demonstrate discrepancies and incoherence between their founding public policy objectives and their conduct of business.

STATE-OWNED ENTERPRISES, STATE CAPITALISM AND SOUTH AFRICA

The exultation of neoliberal macro-policies, encapsulating a plethora of dualistic and linear conceptions of development, has virtually truncated discourses of alternative development paths by entrenching "immutable laws" and overtaking politics (Legum, 2002; Peet, 2002). Whereas Keynes' economics involve the pursuit of political justice and gratification of the electorate's interests, neoliberalism seeks to promote the interests of capital and profiteering (Legum, 2002). Recently, as the financial crisis struck the developed economies, call for state regulation and participation in the economy were made in the form of state capitalism governance (Glemarec & Puppim de Oliveira, 2012; Tsheola, 2013). Studies of state capitalism eloquently propose that states too can invest in business with expressed commercial and financial objectives (Gabriel, 2003; Musacchio & Flores-Macias, 2009a, 2009b; Bradley & Donway, 2010; Xu, 2010; Bacon, 2012; Yi-Chong, 2012; Harvard Business School, 2013; Musacchio, 2013). Almost all states in the world have experimented with varieties of state capitalism model by typically establishing monopolistic, oligopolistic and/or duopolistic SOEs in "strategic sectors", thereby seeking to play a critical role in shaping the national development agenda (Yi-Chong, 2012). The resurgence of SOEs in emerging economies is indicative of attempts to supplement the invisible hand of the market with the visible hand of the state (Glemarec & Puppim de Oliveira, 2012; Tsheola, 2013). That is, state capitalism governance seeks to ensure adequate ingenuity where public policies and institutions govern diverse modes of governance (Glemarec & Puppim de Oliveira, 2012; Yi-Chong, 2012). But the resurgence of SOEs on the global business stage has involved blurring of public policy with commercial financial objectives, the consequences of which manifest in the domestic political-economy of emerging markets through the formation of "bureaugharchs", corruption and dearth of civic virtues (Yi-Chong, 2013).

However, governance of politics and economics is, at all geographic scales, highly contested and, sometimes, controversial, because of vested interests in how societal change and development are to proceed (Desai & Potter, 2002). For emerging economies such as South Africa, the selection of governance model is significant to understanding the development trajectory chosen by the state (Yi-Chong, 2012). However, corporate governance tends to be incoherent because it is produced directly through the dynamics of political and economic systems, institutions as well as politicians' preferences and choices (Gabriel, 2003). As a result, most emerging economies' choice of the model of governance has increasingly become a balancing act for overcoming the discrepancies embedded with political and economic power relations of the society (Glemarec & Puppim de Oliveira, 2012; Yi-Chong, 2012). In practice, though, the triumphalism of market capitalism and the ascendancy of the state-market paralysis, have virtually excised policy alternatives, with emerging markets coerced to adopt economic freedom policies of the Washington Consensus. To this extent, emerging economies such as South Africa have in the past 15 years implemented deeper market reforms that corporatized conventional state-owned enterprises (SOEs) for conduct of business on global stage with unambiguous commercial, rather than public policy, objectives (Tsheola, 2013). The "free market ideology" now has a firm foothold in South Africa's governance of politics and economics, rendering national development hostage to

commercial and financial interests of companies, inclusive of the nuance hybrid of SOEs (Tsheola, 2013), because post-apartheid South Africa's macroeconomics too became mere replicas of Western conceptions of selfhood (Nabudere, 2006), thereby accentuating the development dilemma of a popular democratic state's visible hand supplementing the invisible hand of the market. The adoption of economic freedom policies has meant that the democratic governments would be faced with a tenuous balancing act of political, economic equity and social stability, on the one hand, and pragmatism and technocratic efficiency, on the other (Smith, 2004; Jaglin, 2008; Tsheola, 2012a). Post-2000, the South African state was increasingly confronted with the public market and private market dilemmas of balancing efficiency and equity objectives (Smith, 2004; Jaglin, 2008; Tshandu, 2010). But as inequality persisted at levels above 0.60 gini-coefficient, questions of the democratic government being dysfunctional or developmental arose (Southall, 2007). Arguably, "a strong state" and state agencies are "imperative" for resolving colonial and apartheid legacies (Mitlin, 2004; Bontenbal, 2009; Tshandu, 2010), but a democratic South Africa selected state capitalism, rather than developmental state (Tsheola, 2012a). State capitalism manifests in the form of corporatized governance model wherein state transformation and restructuring is undertaken 'in order to adhere to a private market logic' (Smith, 2004, p.382). The post-2000 centralization of the South African state sheds invaluable insight into the wanting state activism and lacking public entrepreneurship (Atkinson, 2007).

Rather than resolve the dilemmas of the state-market paralysis, emerging economies' so-called "state-led" development governance became, perhaps, "elite-led" (Gibb, 2009). With the gradual acceptance of the Keynesian state-centrism model and the watering-down of the neoliberal market capitalism triumphalism, state participation in commercial affairs through giant corporates surged and the divide between private and public interests blurred (Tsheola, 2012a). A dangerously simplistic and uncritical conception of state-centrism was adopted for corporatization of public utilities (Tsheola, 2012a, 2013). Gibb (2009, p.714, 715) proposes that "states should continue to form the focus of attention", but cautions that state interests are not necessarily "national self-interests". Conversely, the conception of state-centric model of development governance has entailed concessions of state authority, power and, in some cases, sovereignty to commercial interests and SOEs that seek for autonomy and profiteering. Given the complexities of state governance, it has appeared that a democratic South Africa is legitimizing continuities of transposition of the Westphalian state model, risking to deliver evidence that would reinforce cultural determinism stereotypes of successive cohorts of African leaders being incapable of corporate governance.

A developmental state is indispensable for South Africa where the stark societal inequalities would be impossible to resolve through the operations of market forces alone (Levin, 2008). However, this observation does not insinuate a mere supplementation of the invisible hand of the market with the visible one of the state, which has in recent years manifested through SOEs. A developmental state, rather than state capitalism, embraces simultaneous qualities of embeddedness with capital and social movements, as well as insulation from being goaded (Jahed & Kimathi, 2007; Bodibe, 2008; Mukhithi, 2008). Such a state would capably assume the role of driver of development wherein it purposefully guides "capital towards new activities while maintaining broad-based support" of public and commercial interests (Makgetla, 2007, p.31), because it possesses the capability to sustain the pragmatic inseparability and mutual constitutive nature of the economic and political processes (Mukhithi, 2008; Tsheola, 2012a). It may not be necessary to be excessively conscious whether a state is developmental or otherwise, but the form of the state (re)shapes the model of governance and the (re)structuring of SOEs, which provide the most pragmatic and visible hand necessary for states' critical role in fostering development (Jahed & Kimathi, 2007; Tsheola, 2012a). Rather than clarity of definition of national public mandates, it is the state's qualities of directing both private and social capital towards universally shared public development interests, largely through the SOEs, that characterizes the South African dilemma.

South African governments have for almost the past decade declared interest in building a developmental state (Maserumule, 2012). There are varied theoretical interpretations of developmental state, ranging from the neo-classical, neo-liberal minimalist to the neo-Keynesian orthodoxy (Jahed & Kimathi, 2007; Maserumule, 2012). But governments have struggled to govern investments because of the complexity and unpredictability of the decisions involved, notwithstanding increased appreciation of the role of the state in development (Erwin, 2008). Theoretically, a developmental state is expected to "make a decisive structural transformation and intervention within a political-economy, and then sustain those changes over time and against powerful counter-forces in the global economy" (Erwin, 2008, p.29, 30). South Africa's progressive governments have, however, corporatized SOEs in order that they conduct business on the global stage on behalf

of government. Contrary to public policy pronouncements, the ANC-led government has consistently redefined the role of the state away from genuine national developmental goals through the corporate governance and structuring of SOEs.

But the varieties of capitalism are manifestations of reflexive developmentalism that reinvents the state-market paralysis in a nuance state-capital nexus to exclusively serve commercial interests (Peet, 2002; Kolo, 2008; Bradley & Donway, 2010; Dean, Browne & Oster, 2010; Karon, 2011; Coy, 2012; Goryunov, 2012; Lubman, 2012; Webb, 2012; Yi-Chong, 2012). Hegemonic capital has mastered the art of restructuring and readjusting in order to shift to reflexive developmentalism that incorporates its own critiques into an ever-more refined and unchanged version (Peet, 2002). The melding of state powers with those of capital through a nuance hybrid of SOEs, overseen by “bureaugarchs” has meant that proclaimed development path would be paradoxical because of the discrepancies between the state interests and national public self-interests. If not goaded by capital, then the state should be recognized to be marketized through its SOEs participation on the global business stage.

Indeed, Bacon (2012, p.1) cautions that “the spread of a new sort of business in the emerging world will cause increasing problems” because the governance and structuring of the “national champion” SOEs that single-handedly define the national development path gain autonomy for profit maximization but retain entitlements of their public policy objective foundations. The provision of SOEs’ distinct legal form that allows them to operate in commercial affairs with unfettered financial goals, making irrecoverable losses, whilst reserving the right to justify their existence through public policy objectives as companies of strategic national interests, is a manifestation of the development dilemma in which emerging economies are immersed (Gabriel, 2003; Xu, 2010; Yi-Chong, 2012). Within emerging economies such as South Africa, corporate governance for business operations of SOEs (re)shapes the “distribution of income, power and authority; and, profitability, efficiency and sustainability of firms” (Yi-Chong, 2012, p.3). Restructured and transformed in the past 15 years, the nuance hybrid of SOEs has transferred their accountability to shareholders, away from their owner-publics (Bradley & Donway, 2010; Yi-Chong, 2012). The on-going controversies and crises among South Africa’s “national champion” SOEs is evidence that their autonomy is now license to conduct business on the global stage recklessly only to return to National Treasury poorer. These SOEs are in monopolistic, oligopolistic and/or duopolistic positions within emerging economies, justifying their national public policy strategic objectives, whilst simultaneously destroying state’s capability to serve public development agenda. Hence, there is a double-pronged criticism of their conduct of business. From a free market perspective, public ownership and control of SOEs is seen as the primary cause of inefficiencies, cronyism and corruption, whereas proponents of economic equity and social stability highlight the potential threat to these civic virtues which may eventuate as SOEs “gain increasing autonomy in their pursuit of profit maximization” (Yi-Chong, 2012, p.2). Given almost 15 years of neoliberal reforms in most developing countries, these “national champions”, Yi-Chong (2012, p.3) questions the logic of ownership, if it matters in their conduct of business on the global stage.

SOUTH AFRICA’S DEVELOPMENT TRAJECTORY

Post-apartheid governments in South Africa have made public policy pronouncements about the intent to create developmental state governance (NPC, 2012; Maserumule, 2012; Tsheola, 2012a). In practice, post-apartheid South Africa trotted state capitalism variety. Unsurprisingly, the NDP 2030 accepts the transformation of SOEs and clarity of definition of their public interest mandates as one of the “enabling milestones” in the construction of a capable developmental state. Varieties of capitalism are endless, and attempts to restructure almost always reproduce and resituate states into another variety (Kolo, 2008; Bradley & Donway, 2010; Dean, Browne & Oster, 2010; Karon, 2011; Coy, 2012; Goryunov, 2012; Lubman, 2012; Webb, 2012; Yi-Chong, 2012). The first democratic government adopted a mix of economic growth and people-centred approaches to development in the RDP, in an attempt to strike a balance between growth-orientation, people-centeredness and environmental sustainability (Cloete, 2006; Padayachee 2006; Tsheola, 2012). But the ascendancy of GEAR macroeconomics escalated the economic freedom policies underpinned by quantitative-development and growth-orientation. Perhaps the RDP’s avoidance of simplistic binary conceptions of economics was its downfall because the simultaneous drivers for growth, redistribution and sustainability were too ambitious for an emerging economy (Tsheola, 2012b). By mid-1996, GEAR macro-policy superseded the RDP, becoming hegemonic (Padayachee, 2006). GEAR conceives economics as “the logic of a system”, rather than a “servant of humanity’s

development”, unambiguously proposing “a pro-growth strategy” (Cassim, 2006, p.56), in the hope that domestic businesses would participate in global competition to generate jobs and income for the national publics (Legum, 2002; Padayachee, 2006). With GEAR, South Africa embraced the state-market paralysis (Tsheola, 2012a, 2012b). Reverence of GEAR’s political-economy found expression in questions of how its growth could be shared in AsgiSA. The latter was adopted to provide “a set of interventions to promote and create conditions for accelerated and shared growth and development” (RSA, 2006, p.3). But its provisions did not seek to transform the macroeconomic norms for re/capitalisation of the bottom-half of the society. As a result, AsgiSA’s Programme of Action and ‘interventions in the “First Economy”, just as GEAR, were cosmetic (RSA, 2006, p.2). According to the former National Treasury director-general, Lesetja Kganyago, South Africa will continue to apply “economic orthodoxy” wherein development and investment are “driven by the selfish interest that is meant to drive capitalism” (Creamer, 2007, p.9).

However, the NDP 2030 expresses “a real risk that South Africa’s development agenda could fail because the state is incapable of implementing it” (NPC, 2012, p.54). Also, it affirms that South Africa’s SOEs are not focused on serving national public interest and conceives a capable developmental state as active in, among other spheres, “building constructive relations with all sectors of society”, while insulating itself from capture by sectional interests (NPC, 2012, p.409). The SOEs’ conduct of global business suggests, however, that the democratic state has been purchased and captured by private capital. Eskom presents a typical SOE monopoly whose governance and structuring allowed for low electricity rates for multinationals and high prices for the owner-publics. Unsurprisingly, the NDP 2030 observes that “accountability in state-owned enterprises has been blurred”, given that public interest mandates too are poorly defined (NPC, 2012). Whereas the NDP 2030’s enabling milestone of realising “a developmental, capable and ethical state that treats citizens with dignity” (NPC, 2012: 34) is benign, the plan does not create the possibility for SOEs to restructure their relationship with the owner-publics. The NDP 2030 hopes to resolve the discrepancy by clarifying the national public interest mandates of SOEs, which would merely agitate for a more refined variety of capitalism. The NDP 2030 sets a capable, ethical and developmental state as an outcome of restructured SOEs, rather than the former being instrumental in redefining the relationship of these public entities with owner-publics. This form of governance and structuring of SOEs is embedded with state capitalism, which allows for risk-averse applications of public resources in the uncertainties of global business market. Finally, the NDP 2030 calls for improved governance of SOEs as a measure for the creation of an ethical and capable developmental state (NPC, 2012; Donnelly, 2013).

NUANCE HYBRID OF STATE-OWNED ENTERPRISES: DEVELOPMENT DILEMMAS

SOEs are a common feature of the world economy, straddling the developed-developing nations divide, captured in variable nomenclature such as government-owned corporations (GOCs), public sector undertakings (PSUs) or public sector enterprises (PSEs) (Investopedia, n.d.). The most significant characterization of the SOEs is that of “a legal entity created by government to undertake commercial activities” on the owner-government’s behalf (Investopedia, n.d.; Wikipedia, n.d.). That is, whereas SOEs “can be either wholly or partly owned (and funded) by a government” and, typically, “earmarked to participate in commercial activities” (Investopedia, n.d.), their primate founding public policy interests are eroded with their search for increased autonomy and conduct of business on the global stage. There can be no doubt that “the main purpose of all the policies, actions, and practices in the South African public administration are aimed at developing public value, accountability, development, and improved living conditions through effective and efficient service delivery for all South Africans” (Auriacombe, 2010, p.1). With GEAR superseding the RDP, the “relevance of conventional social policies” (Jaglin, 2008, p.1897) came under questioning, simultaneously as the public market and private market dilemma underscored state policy conundrums in “trying to twin efficiency and equity (who gets what and where) objectives” (Smith, 2004, p.375). Evidently, the democratic government has not struck a judicious balance between neoliberalism and redistributive policies; hence, the hegemonic discourse about “efficiency” and “equity” considerations has persisted (Jaglin, 2008, Tsheola, 2012a). South Africa’s so-called developmental state governance degenerated into reflexive developmentalism of varieties of capitalism that “symbolizes a more sophisticated form of neoliberalism by virtue of how the state restructures in order to adhere to a private market logic” (Smith, 2004, p.382).

Notwithstanding despite for bureaucratic potential to create an environment rife with inefficiencies, cronyism and corruption, there is universal acceptance that states have the capacity to provide for capable institutions necessary for optimal governance of capital and business (Glemarec & Puppim de Oliveira, 2012). The scramble to conceive nuance forms of governance that would create state capabilities to participate in global business has characterized the past 15 years of neo-liberalization in most emerging economies (Yi-Chong, 2012). This search coincided with the resurgence of a nuance hybrid of SOEs that are established for public interest policy motives as legal entities for operation on the global business stage with, paradoxically, unambiguous commercial and financial objectives, on behalf of their owner-governments (Kolo, 2008; Bradley & Donway, 2010; Dean, Browne & Oster, 2010; Karon, 2011; Bacon, 2012; Coy, 2012; Goryunov, 2012; Lubman, 2012; Webb, 2012; Yi-Chong, 2012). Metaphorically described as “coddled state giants”, the nuanced hybrid of SOEs is increasingly dominating the global business stage (Gabriel, 2003; Musacchio & Flores-Macias, 2009a, 2009b; Bradley & Donway, 2010; Xu, 2010; Yi-Chong, 2012; Harvard Business School, 2013; Musacchio, 2013). This restructuring of SOEs was an exercise in reflexive developmentalism designed to ensure that their relationship with owner-publics remains unaltered.

In the present day South Africa, the ANC-led state has evidently been weakened whilst the governing regime gained relative stability and apparent strength. Increasingly, the ANC-led state governance incorporates elements of “personalized rule”, “elite subservience to the core” and “a shadow state” (Gibb, 2009), where differentiation between the public and private spheres of governance is blurred. The propensity of the present South African state governance to be focused on personal power, patronage, clientilism and, perhaps, corruption, cannot be tenably discounted. Rather than the “order-inducing propensities”, South African politics are increasingly captivated by state control of resources and power of the governing regimes, and the ruling elites’ apparent reluctance to uphold civic virtues, democratic principles and ideals. The seat of control of the democratic state has in recent times struggled to manage the pursuit of “personal power and prestige”. These ills appear to be synonymously associated with the state governance and structuring of the nuance hybrid of “national champion” SOEs such as Eskom, PetroSA, Sentech, Post Office, Telkom, South African Airways (SAA), Transnet, Denel, Broadband Infracore, and so on.

Just to highlight the crisis-ridden operations of these SOEs, the former National Treasury director-general, Lesetja Kganyago, “likened SAA to a drunk that pretended to reform, only to return to the pub once it had the money in hand” (Smith, 2012, p.2). On its part, PetroSA has been rocked in recent months by allegations of impropriety, misspent R200 million and placement of R800 million at unnecessary risk (Donnelly, 2013). Not to be left behind, the SAA is often characterised as an “ailing” carrier in “permanent crisis” (Barron, 2013; Smith, 2013a, 2013b). Recently, revelations about the electricity public utility, Eskom, which appears to fail to secure adequate power supply for the nation, show that it has entered into a secret contract with BHP Billiton that would expire in 2028, wherein this multinational company pays an average of R0.2715 for kWh of electricity (Yelland, 2013) when the cost of production is about R0.4000 per kWh, whilst the general public pay R140.00 for the same amount of electricity. Also, whereas the energy regulator approved 8%, rather than the 16%, rate increase per kWh of electricity for the next three years, effective from April 03, 2013 (Benjamin, 2013), the state-capital nexus continues to serve capital interests through this “national champion” SOE. Concerns should be raised further because Eskom has over 140 large industrial and mining customers; and, the lack of transparency in the contracts for electricity pricing arrangements is now proven to be palpable (Benjamin, 2013). Simultaneously, the democratic state has not capably directed “the behaviour of private investment” (Habib, 2008, p.43); and, political discourse is increasingly overtaken by “bureaugarchs”, wherein political masters who were supposed to serve as public entrepreneurs are now profoundly shaped into “*apparatchiks*”. Hence, South Africa’s public policies are largely formulated to serve the capital interests of companies listed on global stock exchanges, which are erroneously assumed to coincide with state and national publics self-interests, have uniformly failed to inculcate a sense of civic duty, “public value, accountability, development, and improved living conditions through effective and efficient service delivery for all” (Auriacombe, 2010, p.1).

There is palpable national development dilemma of balancing the interests of SOEs’ productivity and their increasing economic power, amidst the decline of state-sector and encroachment of private-sector into all spheres of life of poor people, as well as the shaping of political masters and public policy, together with the pre-eminence of market efficacy over political deliberations about how widespread poverty, inequality and discriminatory distribution of national resources could be resolved, through common perpetrators. Most of these

SOEs have been “permanently” marked by controversy and allegations of corruption, instability over the past years; and, a Presidential Review Commission was constituted in 2010 in order to transform these commercial national champions, by “strengthening government oversight ... and aligning them to the state’s developmental agenda” (Donnelly, 2013, p.6). According to Wooldridge (2012) governments are capable of providing “the seedcorn for innovation”, but they are incapable of turning it into bread. South Africa’s governance of SOEs can best be described, as a “boulevard of broken dreams” and “Valley” of “Ghosts” (phraseology borrowed from Lerner, cited in Wooldridge, 2012, p.14). In supplementation of the invisible hand of the market, the visible hand of state is perpetrating the status quo of a deeply fragmented society through the SOEs in emerging economies.

CONCLUSION

This paper has argued that the most distinct differentiation of society occurs through governance and structuring of SOEs. A democratic South Africa has with a development path that could be described as state capitalism, using SOEs and thereby lending the state into dilemmas of balancing economic equity and social stability, on the one hand, and commercial efficiency and profiteering, on the other. The paper insinuates that the NDP 2030 would merely reproduce yet another variety of capitalism because the SOEs it seeks to exploit as “enabling milestones” for the creation of an ethical and capable developmental state are themselves operating as though they were private multinationals on the global business stage. The discrepancies and incoherence in the SOEs’ founding public policy objectives and their conduct on the global business stage are deep and can be expected to continue unabated under the hegemony of economic freedom policies.

REFERENCES

- Adedeji, A. (2009). Africa and the Crisis of Global Financial Governance. *New Agenda*, 33, 4-5.
- Atkinson, D. (2007). Taking to the Streets: has Developmental Local Government failed in South Africa. In Buhlungu, S., Daniel, J., Southall, R. & Lutchman, J. (eds.), *State of the Nation: South Africa 2007*. Pretoria: HSRC.
- Auriacombe, C.J. (2010). Editorial Perspective: Public Value in a Democratic, Accountable Developmental State – Innovative Policy and Practice. *Administratio Publica*, 18(4), 1-16.
- Bacon, D. (2012). Emerging-market Multinationals: the Rise of State Capitalism. *The Economist*, <http://www.economist.com/node/21543160/print> (Accessed: March 17, 2013).
- Barron, C. (2013). Why is this Woman Chair of SAA? <http://www.bdlive.co.za/national/2013/04/07/why-is-this-woman-chair-of-saa/> (Accessed: April 13, 2013).
- Benjamin, C. (2013). Nersa Slaps Down Eskom’s R8bn Plea: the Regulator has Rejected the Utility’s Request to Carry on Paying Big Users to Cut Consumption. *Mail & Guardian*, March 28 to April 04, 2013, p.10.
- Bodibe, O. (2008). A Labour Perspective on the Developmental State Debate. *South African Journal of Social and Economic Policy*, 30, 35-41.
- Bontenbal, M.C. (2009). Strengthening Urban Governance in the South through City-to-City Cooperation: Towards an Analytical Framework. *Habitat International*, 33, 181-189.
- Bradley, R. & Donway, R. (2010). Capitalism, Socialism, and “the Middle Way”: a Taxonomy. *Independent Review*, <http://www.highbeam.com/doc/IGI-230865752.html> (Accessed: March 17, 2013).
- Cassim, R. (2006). Reflections on South Africa’s First Wave of Economic Reforms. In Padayachee, v. (ed.) *The Development Decade? Economic and Social Change in South Africa, 1994-2004*. Cape Town: HSRC.
- Cheru, F. (2002). *African Renaissance: Roadmaps to the Challenge of Globalization*. London: Zed Books.

Cloete, F. (2006). Public Policy in More and Lesser Developed States. In Cloete, F., Wissink, H. & de Coning, C. (eds.) *Improving Public Policy: from Theory to Practice* (2nd edn.) Pretoria: Van Schaik.

Coy, P. (2012). China's State Capitalism Trap. *Bloomberg Businessweek*, <http://www.businessweek.com/printer/articles/7930-chinas-state-capitalism-trap> (Accessed: March 17, 2013).

Creamer, T. (2007). Speaking Past One Another? *Engineering News*, 27, p.9.

Dauids, I. (2005). Poverty in South Africa: a Development Management Perspective. In Dauids, I., Theron, F. & Mapunye, K.J. (eds.) *Participatory Development in South Africa: a Development Management Perspective*. Pretoria: Van Schaik.

Dean, J., Browne, A. & Oster, S. (2010). China's 'State Capitalism' Sparks a Global Backlash. *The Wall Street Journal*, <http://online.wsj.com/article/SB10001424052748703514904575602731006315198.html> (Accessed: March 17, 2013).

De Coning, C. (2006). The Nature and Role of Public Policy. In Cloete, F., Wissink, H. & de Coning, C. (eds.) *Improving Public Policy: from Theory to Practice* (2nd edn.) Pretoria: Van Schaik.

Desai, V. & Potter, R.B. (eds.) (2002). *The Companion to Development Studies*. London: Arnold.

Donnelly, L. (2013). Pule's Wings to be Clipped in Shake-up. *Mail & Guardian*, May 10-16, 2013, p.6.

Edigheji, O. (2010). Rethinking National Planning Institutions: a Critical Appraisal of the Green Paper. *South African Journal of Social and Economic Policy*, 37, 18-24.

Erwin, A. (2008). The Developmental State and Political Power. *South African Journal of Social and Economic Policy*, 30, 26-31.

Gabriel, S.J. (2003). *Chinese Capitalism and the Modernist Vision*. London: Routledge.

Gibb, R. (2009). Regional Integration and Africa's Development Trajectory: Meta-theories, Expectations and Reality. *Third World Quarterly*, 30(4), 701-721.

Glemarec, Y. & Puppim de Oliveira, J.A. (2012). The Role of the Visible Hand of Public Institutions in Creating a Sustainable Future. *Public Administration and Development*, 32, 200-214.

Goryunov, F., (2012). What Kind of Capitalism has Russia Built? *Rossiyskaya Gazeta*, <http://rbth.ru/articles/2012/03/23/what-kind-of-capitalism-has-russia-built-15160.html> (Accessed: March 17, 2013).

Habib, A. (2008). Development is a Political Process: Reflections on the Development State for South Africa. *South African Journal of Social and Economic Policy*, 30, 42-45.

Harvard Business School (2013). What Capitalists Should Know about State-owned Enterprises? *Forbes*, *Harvard Business School Working Knowledge*. <http://www.forbes.com/sites/hbsworkingknowledge/2013/02/22/> (Accessed: March 17, 2013).

Investopedia (n.d.) *State-owned Enterprise (SOE) Definition*. <http://www.investopedia.com/terms/s/soe.asp> (Accessed: March 17, 2013).

Jaglin, S. (2008). Differentiating Networked Services in Cape Town: Echoes of Splintering Urbanism? *Geoforum*, 39, 1897-1906.

Jahed, M. & Kimathi, S. (2007). Economics of the Developmental State. *South African Journal of Social and Economic Policy*, 28, 47-52.

- Karon, T. (2011). Why China does Capitalism Better than the U.S. *Time*, <http://www.time.com/time/world/article/0,8599,2043235,00.html> (Accessed: March 17, 2013).
- Kolo, V. (2008). China's Capitalist Counter-revolution. *Socialism Today*, <http://www.socialismtoday.org/114/china.html> (Accessed: March 17, 2013).
- Legum, M. (2002). *It Doesn't Have to be Like This! A New Economy for South Africa and the World*. Kenilworth: Ampersand.
- Levin, R. (2008). Public Service Capacity. *South African Journal of Social and Economic Policy*, 29, 28-35.
- Makgetla, N. (2007). A Developmental State for South Africa? *South African Journal of Social and Economic Policy*, 28, 29-36.
- Lubman, S. (2012). China's State Capitalism: the Real World Implications. *The Wall Street Journal (WSJ)*, <http://blogs.wsj.com/chinarealtime/2012/03/01/china-state-capitalism-the-real-world-implications/> (Accessed: March 17, 2013).
- Makhura, M. (ed.) (2013). *History of the Land Bank: Financing Agriculture for 100 Years*. Centurion, Pretoria: Land Bank Public Information Centre.
- Maserumule, M.H. (2012). Discourse on the Concept of a Developmental State in South Africa: a Deconstructive Approach. *Journal of Public Administration*, 47(1), 180-201.
- Mitlin, D. (2004). Reshaping Local Democracy. *Environment and Urbanization*, 16(1), 3-8.
- Mukhithi, L. (2008). State as the Driver. *South African Journal of Social and Economic Policy*, 29, 42-45.
- Musacchio, A., (2013). What Capitalists Should Know about State-owned Enterprises. *Harvard Business School Working Knowledge*, <http://www.forbes.com/sites/hbsworkingknowledge/2013/02/22/what-capitalists-should-know-about-state-owned-enterprises> (Accessed: March 17, 2013).
- Musacchio, A. & Flores-Macias, F. (2009a). The Return of State-owned Enterprises. *Harvard International Review*, <http://hir.harvard.edu/the-return-of-state-owned-enterprises/> (Accessed: March 17, 2013).
- Musacchio, A. & Flores-Macias, F. (2009b). The Return of State-owned Enterprises: Should we be Afraid? *Harvard International Review*, http://www.stwr.org/index2.php?option=com_content&task=view&id=3831&pop=1 (Accessed: March 17, 2013).
- Nabudere, D.W. (2006). Development Theories, Knowledge Production and Emancipatory Practice. In Padayachee, V. (ed.) *The Development Decade? Economic and Social Change in South Africa, 1994-2004*. Cape Town: HSRC.
- National Planning Commission (NPC). 2011. *Diagnostic Report*. Pretoria: The Presidency.
- National Planning Commission (NPC). (2012). *National Development Plan 2013: Our Future – Make it Work*. Pretoria: The Presidency.
- Padayachee, V. (2006). Development discourses in post-apartheid South Africa. In V. Padayachee (Ed.), *The Development Decade? Economic and Social Change in South Africa, 1994-2004*. Cape Town: HSRC.
- Peet, R., (2002). Ideology, Discourse, and the Geography of Hegemony: from Socialist to Neoliberal Development in Post-apartheid South Africa. *Antipode*, 34(1), 54-84.

- Pinto, R.R. & Puppim de Oliveira, J.A. (2008). Implementation Challenges in Protecting the Global Environmental Commons: the Case of Climate Change Policies in Brazil. *Public Administration and Development*, 28(5), 340-350.
- Republic of South Africa (RSA), (2006). *Accelerated and Shared Growth Initiative – South Africa (ASGISA)*. Pretoria: Government Printers.
- Smith, L. (2004). The Murky Waters of the Second Wave of Neoliberalism: Corporatization as a Service Delivery Model in Cape Town. *Geoforum*, 35, 375-393.
- Smith, N. (2012). SAA cries for Treasury helping hand again. *Business Day*, (Johannesburg) February 15, 2012, p.2.
- Smith, N. (2013a). *SAA Looks Beyond Aviation Industry for New Hands to Guide Ailing Airline*. <http://www.bdlive.co.za/business/transport/2013/04/10/saa-looks-beyond-aviation-industry-for-new-hands-to-guide-ailing-airline/> (Accessed: April 13, 2013).
- Smith, N. (2013b). *Task Team Hands over Turnaround Plan for SAA*. <http://www.bdlive.co.za/business/transport/2013/04/03/task-team-hands-over-turnaround-plan-for-saa/> (Accessed: April 13, 2013).
- Southall, R. (2007). Introduction: the ANC State, more Dysfunctional than Developmental? In Buhlungu, S., Daniel, J., Southall, R. & Lutchman, J. (eds.), *State of the Nation: South Africa 2007*. Pretoria: HSRC.
- The Economist*, (2009). *State-owned Enterprises Stakes and Mistakes: India's Government is Privatising Companies for the Wrong Reasons*. <http://www.economist.com/node/14845283/print> (Accessed: March 17, 2013).
- The Economist*, (2012). The Rise of State Capitalism: the Emerging World's New Model. 402(8768), 11-12.
- Tshandu, Z. (2010). Service Plans as Accountability Mechanisms: Evidence from the South African Public Service. *Administratio Publica*, 18(4), 46-70.
- Tshishonga, N. & Mafema, E.D. (2010). Policy Development for Service Delivery through Community Development Workers Programme in South Africa: Exploring the Implications of Placing a Cart before the Horse. *Journal of Public Administration*, 45(4), 561-583.
- Tsheola, J. (2012a). Theorising a Democratic Developmental State: Issues of Public Service Delivery Planning and Violent Protests in South Africa. *Journal of Public Administration*, 47(1), 161-179.
- Tsheola, J. (2012b). The Binary Conception of Economics, Janus-faced Development and the Aspiration for "Accelerated and Shared Growth in South Africa". *China-USA Business Review*, 11(2): 185-199.
- Tsheola, J. (2013). State Capitalism Meta-governance, State-capital Nexus and State Activism Paradoxes in the Gauteng Freeways. *Journal of Public Administration*, 48(1), 35-50.
- Xu, G. (2010). *State-owned Enterprises in China: How Big are They? East Asia & Pacific on the Rise*, <http://blogs.worldbank.org/eastasiapacific> (Accessed: March 17, 2013).
- Yi-Chong, X. (ed.) (2012). *The Political Economy of State-owned Enterprises in China and India*. London: Palgrave Macmillan.
- Webb, N. (2012). State Capitalism: a Choice of Models, Theme and Variations. *The Economist*, <http://www.economist.com/node/21542924/print> (Accessed: March 17, 2013).

Wikipedia, (n.d.). *Government-owned Corporations*. http://www.en.wikipedia.org/wiki/Government-owned_Corporation (Accessed: March 17, 2013).

Wooldridge, A. (2012). State Capitalism: the Visible Hand. *The Economist*, 402(8768), 1-18.

World English Dictionary, (n.d.). *Apparatchiks: Origin and History*. <http://dictionary.reference.com/browse/apparatchiks> (Accessed: March 17, 2013).

Yelland, C. 2013. Analysis: Eskom's special electricity pricing deals with BHP Billiton. *Daily Maverick*, March 25, 2013. <http://www.dailymaverick.co.za/2013-03-25-analysis-eskoms-special-electricity-pricing-deals-with-bhp-billiton/> Accessed: March 31, 2013.

THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY PERCEPTION ON THE JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT

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ABSTRACT

Today, corporations are not only responsible on the economical or legal basis, but also liable on ethical and philanthropic grounds. Corporate social responsibility activities influence the stakeholders in the first place, hence the employees, one of the vital stakeholders of the organizations. Social responsibility activities can have a direct effect on the job satisfaction and organizational commitment of employees. This paper investigates the employees' perception on corporate social responsibility, and examines the effect of this perception on organizational commitment and job satisfaction. Hence, the individual factors that have an impact on this perception, namely gender, age, education level, the hierarchical position in the organization, the working time and the participation to the company's social responsibility projects, are considered. The data collection is through a survey conducted among the employees of Turkish Petroleum Refineries Corporation (TUPRAS), the third most profitable and the largest private firm quoted to the Borsa Istanbul. From the findings obtained through chi square, t – test and ANOVA, one can observe an insignificant relation between organizational commitment and job satisfaction, and perceptions of corporate social responsibilities.

INTRODUCTION

The implementation of corporate social responsibility (CSR) has become an inseparable part of today's business environment. In the past, CSR activities were perceived only an obligation which was used to improve the public opinion towards the company, but not a basic component of business strategy. As a result, they were only limited to financial aids. Nowadays, on the other hand, CSR has been evolving to a concept where its implementations have become a complementary element of the business life. In contrast to the previous thought that states CSR wastes the valuable sources, now companies are eager to use CSR implementations as a new and efficient tool to struggle with the wild competition conditions in the market.

In fact, CSR is not only an instrument to compete in the market, but also a means of gaining the confidence and support of stakeholders. The companies that show that they are responsible against the stakeholders as well are more likely to gain this confidence. The increase in the organizational commitment and job satisfaction is very natural when the employees observe that their company also works for the social wealth through CSR implementations. Hence, it is possible to create a working environment that fulfills the expectations of both the company and the employees.

Because of the above mentioned reasons, this study takes the employees, one of the most important stakeholders, as a unit of analysis. The aim is to examine the employee perceptions against the CSR implementations through the individual factors, including age, gender, education level, position in the company, working time, and to participate to the CSR projects. The main research question is whether there is a significant difference among the employee groups according to these individual factors. Although there are several studies that consider these individual factors and the differences they create on the CSR perceptions, there is no

agreement on their specific impacts. This study plans to add to the literature by presenting new evidence from one of the largest companies' employees in Turkey as a developing country example.

The remainder of the study is as follows. First, the concept of CSR and its importance as well as the individual factors that affect the employees' CSR perceptions will be documented. Subsequently, the linkage between the CSR perceptions, and organizational commitment and job satisfaction will be explained based on the literature. The analyses and findings will be presented in the next section. The study will conclude in the final section.

CONCEPT OF CORPORATE SOCIAL RESPONSIBILITY

According to Bowen (1953), one of the first among those that defines the concept, "*CSR refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society*" (Carroll, 1999:270). In other words, CSR is to make an effort for the society as well as the company itself. Davis (1973: 312), on the other hand, describes the social responsibility for a company as such: to consider and to answer the issues further than its limited economical, technical and legal liabilities. Another definition for the concept is that the implementations and participation policies of a company for social benefit that are above and beyond the legal responsibilities (Bronn et al., 2001: 209). The common point of all these definition is the emphasis on the aspect that reflects more than the company's economical and legal responsibilities.

Smith (2003) indicates that CSR, in a general definition, is the liabilities of the company against to the society, but more specifically against to its stakeholders. The concept of stakeholders embraces most importantly shareholders and employees, but also suppliers, customers, governments, unions, local administrations, and NGOs (Freeman, 1984). From these definitions above, one may conclude that CSR is a concept that takes into account the needs of different stakeholder groups.

It is well known that the CSR implementations improve sales and market shares, empower the brand position, provide a better corporate reputation, decreases costs such as advertisement, waste management and energy consumption, and most importantly draw investor attention (Kotler and Lee, 2004). For instance, Preston and O'Bannon (1997) show a positive correlation between financial and social performances. Waddock and Graves (1997) find a positive association between social performance of firms and their past and future financial performances. Again a similar finding is put forth by Robbins and Coulter (2002). Moir (2001) specifically points out that companies themselves also benefit from the CSR implementations.

CSR literature also indicates a positive effect of company participations to the social projects on the current and potential employees as well as the society itself. Kotler and Lee (2004) note two researches in this field. The first research reports that employees in the companies that have social responsibility programs are 38% more happy with the corporate values than those that work in other companies. The second one demonstrates that 80% of the participants are more likely to reject to work in companies that display negative corporate citizenship applications.

Without a doubt, employees are the stakeholders that are affected most from the company operations and the organizational decisions. They are crucial in the realization of company goals. Likewise, employees themselves expect economical and social benefits in return to fulfilling their responsibilities against the company. If these economical, social and emotional expectations are not satisfied, employees will be reluctant, even quitting the job is likely. This lack of support from the employees would risk the realization of the fundamental goals of the company.

In the light of the above mentioned studies, one may conclude that the companies that provide more than their stakeholders' economical and legal expectations are successful to reach their goals and satisfy the different needs. As a corollary, CSR implementations that fulfill the needs of the employees, one of the most essential stakeholders, can increase the organizational commitment as well as job satisfaction.

THE INDIVIDUAL FACTORS THAT IMPACT THE EMPLOYEE CSR PERCEPTIONS

Literature suggests gender, age, education level, position in the company as the individual factors that affects the employee CSR perceptions. Different studies highlight the gender differences in perceptions. For instance, Peterson (2004) shows that men are more eager to realize economical CSR implementations, while women put more importance on voluntary CSR activities. Along the same lines, women are more bounded by the ethical standards than men (Peterson, 2004). Another study by Ravlin and Meglino (1987) shows that women are more sensitive to be helpful than men. İbrahim and Angelidis (2004), in a similar manner, find that women members of board of directors are more interested in voluntary CSR implementations, while men members pay more attention to the economical dimension.

Following the legal dimension, ethical behavior differences between genders are a well examined topic. Schminke indicates that women exhibit more ethical behavior than men. The findings of Hoffman, on the other hand, cast a shadow over the previous results of Schminke, and demonstrate that more ethical behavior is displayed by women and men depending on the situation (McDaniel et al., 2001). Fritzsche cannot provide significant differences among women and men managers. Similarly, the results of Barnett and Karson cannot present a significant difference between women and men managers according to their reactions to the ethical dilemmas (Ekin and Tezölmez, 1999). Derry (1987) also cannot demonstrate a statistical association between gender and ethics. Again, another study by Marz (1999) cannot reject the null hypothesis stating that there is no gender difference between managers in the perception of ethical behavior. These studies reflect the attitudes of different genders towards ethical dilemmas or ethical behavior.

Another individual factor that affects the CSR perception of employees is age. Literature mainly suggests that older people are less tolerant against unethical behaviors than younger people. However, Browning and Zabriski show that younger sales managers have higher ethical standpoints regarding to older ones (Ekin and Tezölmez, 1999). The study by Ravlin and Meglino (1987) still reports that the age factor plays an important factor in the individual value system. This paper indicates that older people are more sensitive in helpfulness and justice issues than the younger. Nevertheless, there are studies that point out no effect of age on the employees perceptions about the voluntary company activities. Based on these studies, it is not possible to observe a strong association between age and CSR implementations.

The relation between education level, the next individual factor, and CSR perception of employees is also investigated in many papers in the literature. Ekin and Tezölmez (1999) indicates that the higher the level of education of employees is related to the more importance put to the CSR activities. Jones and Gautschi note that employees having a university degree pay more attention to CSR than those do not have (Marz, 1999). There is contradictory evidence as well. Dubinsky and Ingram (1984), and Harris, Kidwell and Serwinek show that education level is not a determinant of ethical behaviors (Ekin and Tezölmez, 1999). In sum, there is no common view in the CSR perceptions and education level relation studies.

The CSR perceptions of employees may also show differences according to the position in the company. Lusch and Lacznik note that higher level managers are more prone to execute CSR implementations than their subordinates (Marz et al, 2003). Accordingly, Mehta and Kau present evidence indicating that employees display more ethical behaviors as they ascend through the higher levels of the organizational hierarchy. Kam-Hom confirms these previous findings by demonstrating that middle level managers are less ethical comparing to the higher level ones (Ekin and Tezölmez, 1999).

The contradictory evidence is put forth in the study of Posner and Schmidt. They illustrate that the level of sensitivity to the ethics becomes lower as the managers gets higher hierarchical levels (Ekin and Tezölmez, 1999). Similarly, Ravlin and Meglino find lower CSR perceptions in the management levels relative to the non – management levels (Marz et al, 2003). Delaney and Skell sets forth that lower level managers shows more unethical behaviors in order to be promoted to the higher levels (Ekin and Tezölmez, 1999). Ostlund, on the other hand, cannot provide evidence in favor of differences of high and middle level managers' CSR perception. Izraeli also finds no evidence of position effect on the ethics perception of different level managers (Marz, 1999).

THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY PERCEPTION ON THE ORGANIZATIONAL COMMITMENT

Porter, Steers and Mowday define the organizational commitment as the identifying the individual herself with the organization and work for the organizational goals and values (Swales, 2004:187-189). In another definition by O'Reilley and Chatman (1986) notes that organizational commitment is the psychological commitment to the organization that the individuals feel for. Commitment is shaped by the interest to the job, loyalty and the strong beliefs in the organizational values (Caldwell, Chatman and O'Reilly, 1990:247). In sum, organizational commitment definitions can be gathered as such: accepting the organizational goals and values, work for these goals, a strong will to increase the organizational success, and the determination to be a member of the organization (Drummond, 2000:10), the degree to which an individual identify herself with the organization and involve to the organizational goals (Kreitner and Kinicki, 2001:15), the powerful desire to pursue the membership in the organization, and make an effort for the organization and strong acceptance to the organizational goals and values (Morrow, 1983: 491). Even though there are several definitions of organization commitment in the literature as one may observe above, these studies mostly emphasize the psychological state of the employee in the association of her organization.

Motivation is the influencing process and the creation of the willingness to inspire the individual by designing a business environment that satisfies both the needs of the organization and its employees. Since the employee needs are taken into consideration inside the organization, the organizational commitment will increase. It is a fact that employees have not only economical, but also social and emotional expectations from their companies. Hence, CSR implementation can be used as a means of fulfilling such expectations. As the needs of employees are satisfied in such a way, their affective and normative commitments are expected to be higher.

It is natural that as the company shows more interest to the social issues and its employees participate to the social projects, the company reputation strengthens, and the affective commitment enhances. Employees will be proud of their own jobs, if the company itself realizes activities to be proud of. This will undoubtedly reinforce the organizational commitment of employees (Peterson, 2004). Sanders and Roefs indicate a positive relation between CSR perceptions and affective commitment of the employees (Gilder et al., 2005). Many others in the literature confirm that the companies' ethical responsibilities affect organizational commitment (Herndon et al., 2001; Valentine et al., 2002).

According to Chatman, employee organizational commitment is closely related to the organization's attitude in ethical issues as well as the consistency of this attitude to the employee's own value judgment. Employees are willing to work in companies that have parallel values to their own values. O'Reilley and Chatman emphasize that this value judgment consistency provides organizational commitment (Dutton et al., 1994). As the employees observe that the companies display ethical behaviors, they believe that these attitudes will be valid for their association to the company as well; and hence their organizational commitment level will be positively affected (Peterson, 2004).

Peterson (2004) indicates that organizational commitment also depends on the employees' own interest to the CSR activities. As a result, the employees who place emphasis on the CSR activities will show a higher degree of organizational commitment to a company that implements CSR successfully. Dutton points out that charity activities are very effective in the establishment of the organizational perceived identity. These activities improve the company reputation, and hence the organizational commitment is positively impacted (Upham, 2006). It is found that the employee satisfaction is three times higher in the companies where voluntary participation to the social projects is possible. Likewise, there are various studies demonstrating that voluntary participation is closely associated to organizational commitment (Peterson, 2004; Gilder et al., 2005).

Employees will display more organizational commitment as they believe that people outside of the company have a positive attitude towards their company. In addition, the outside reputation is positively

perceived by those who do not attend to the voluntary program as well as those who actually attend (Gilder et al., 2005). All in all, observing that companies perform voluntary responsibilities will affect the employees' organizational commitment, because working in a philanthropic organization creates more employee identification with the company, and hence powerful organizational commitment.

THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITY PERCEPTION ON THE JOB SATISFACTION

Adams (1963) defines job satisfaction as the balance between the perceived inputs and outputs of an individual. An employee will be satisfied if she believes that the inputs such as effort, education, experience etc are equal to the outputs like wage, and status. Robins (2000) explains the job satisfaction as the general attitude of the employees towards their job, and suggests that those who have positive attitude will have higher job satisfaction. According to Luthans (1995), job satisfaction is a result of compensation degree perception of an employee to which the job provides the important values of the worker. Davis (1998), on the other hand, defines job satisfaction as the pleasure or the discontent that an employee displays towards its company. Last, the job satisfaction may be explained as the perception degree to which the important things for an employee are fulfilled in her job (Luthans, 1995:126; May, Korczynski and Frenkel, 2002:794).

Riordian et al. (1997) finds that in the companies that manage their social environment positively, employees have higher job satisfaction levels. It is also possible to mention a positive association between organizational ethics and job satisfaction, however. The employees that believe that their organizations are fair to its workers; also think that the ethical responsibilities of the company are also accomplished. The corollary of this situation is the increase in the job satisfaction (Koh and Boo, 2004). Consistent with the previous findings, Vittell and Davis set forth that less job satisfaction is observed when the company do not obey the ethical rules, whereas an increase in the job satisfaction when the high level managers behave conversely (Satish, 1996). Furthermore, there is a relation between voluntary social responsibility activities and job satisfaction. The companies which execute voluntary activities will have a better reputation from the point of view of the employees and the society, and hence more job satisfaction will be observed (Upham, 2006). Another factor that affects the job satisfaction is the voluntariness level of the employees. Through the voluntary programs, employees have a chance to improve themselves in the areas of team working, problem solving, communication, creativeness, and leadership (Satish, 1996).

METHODOLOGY

TUPRAS oil refinery provides the population for the study, where 867 people are employed. The white collar and blue collar employee numbers are 141 and 726 respectively. A questionnaire is applied to total number of 104 TUPRAS employees. All of them are randomly selected. 55 employees have been a part of CSR projects before, while 49 of them have not participated for these projects. Participants were asked 24 closed end questions in 3 different categories. The first 6 questions are to determine the descriptive of the participants such as gender, age, education level, working time, position in the company and joining to the CSR projects. The subsequent 9 questions measure the impact of CSR' perceptions on the organizational commitment; while the last part of the questionnaire is designed to show the same impact on job satisfaction. A Likert type scale is used, in which the items are from 1 to 5 representing an opinion of strongly disagree to strongly agree. In order to assess the internal consistency of each dimension, Cronbach's alpha is computed. For the organizational commitment items and job satisfaction, Cronbach's alphas are found respectively 0.943 and 0.948, which are well above the lower limit of 0.70 (Hair et al., 2005). Next, to explore the dimensionality of the scale, explanatory factor analysis is conducted. Both the organizational commitment and job satisfaction scale items provide one factor that explains the 0.69 and 0.71 of the total variance. These findings suggest that the scale items are unidimensional.

Once the reliability issues are checked, one may continue with the hypotheses of the research. The main hypotheses of the study can be stated as follows:

H₀₁₁: There is no difference in the organizational commitment created by the CSR projects across genders.

H0₁₂: *There is no difference in the organizational commitment created by the CSR projects across educational levels.*

H0₁₃: *There is no difference in the organizational commitment created by the CSR projects across positions in the company.*

H0₁₄: *There is no difference in the organizational commitment created by the CSR projects across various working times.*

H0₁₅: *There is no difference in the organizational commitment created by the CSR projects across ages.*

H0₁₆: *There is no difference in the organizational commitment created by the CSR projects among the employees who actually participate to a CSR project and who do not.*

H0₂₁: *There is no difference in the job satisfaction levels created by the CSR projects across genders.*

H0₂₂: *There is no difference in the job satisfaction levels created by the CSR projects across educational levels.*

H0₂₃: *There is no difference in the job satisfaction levels created by the CSR projects across positions in the company.*

H0₂₄: *There is no difference in the job satisfaction levels created by the CSR projects across various working times.*

H0₂₅: *There is no difference in the job satisfaction levels created by the CSR projects across ages.*

H0₂₆: *There is no difference in the job satisfaction levels created by the CSR projects among the employees who actually participate to a CSR project and who do not.*

In order to test these hypotheses, first, the dimensions of CSR perceptions among the employees are constructed. To do so, factor analysis by the aid of principal component method and varimax rotation is utilized. Subsequently, chi – square test, t test and ANOVA are employed to assess whether there is a significant difference between the mentioned groups. For a further investigation, all of the items are compared according to gender, education level, positions, working times, ages and actual participation to a CSR project.

ANALYSES AND FINDINGS

CSR perception dimensions are constructed by using principal component analysis and varimax rotation. From the anti image matrix, each of the measure of sampling adequacy values are checked and observed that all of them are above the critical level of 0.50. The overall sampling adequacy is controlled by the Kaiser Meyer Olkin Measure of Sampling Adequacy (KMO) and Bartlett Test of Sphericity. Both measures show that the overall analysis performs a good fit. KMO Measure of Sampling Adequacy is 0.909 (>0.50) and Bartlett's Test is significant at 0.01 significance level (p value = 0.000). After the varimax rotation, two factors are extracted based on the latent root and Eigen-value criteria. They cumulatively explain 71.711 % of the total variance. The 9 items of job satisfaction load to the factor 1, while the remaining 8 items of organizational commitment load to second factor. Following Hair et al. (2005), the factor loadings below 0.55 are suppressed. Item 6 of the organizational commitment is decided to remove from the analysis to avoid cross loadings after examining the communalities. As a result, factor 1 is named as the job satisfaction, and the factor 2 is named as organizational commitment.

The following step is to test the above mentioned null hypotheses by the aid of these two factor scores. 2 parametric tests, namely t test and ANOVA, and a non parametric test, namely chi square test are employed. The findings are summarized in the Table 1.

The findings from the chi square and t test cannot demonstrate a gender difference in the organizational commitment and job satisfaction levels created by CSR projects at 5% significance level, since the p values are respectively 0.45 and 0.45 in the chi square tests, and 0.80 and 0.42 in the t tests. Hence, the H0₁₁ and H0₂₁ cannot be rejected. These results are in fact in line with the study of Fritzche, which cannot show a significant difference in the CSR perception across genders. In a similar manner, Barnett and Karson point out that women and men managers do not react differently against ethical dilemmas (Ekin and Tezölmez, 1999). Derry (1987), again, cannot find a relation between gender and ethical perceptions. Last to mention, Marz et al. (2003) indicate no significant difference among managers in different genders to perceive the ethics. As a result, the findings of this study are consistent with the gender difference and CSR perception literature.

Table 1. Results of the Impact of Corporate Social Responsibility Perception on the Organizational Commitment and the Job Satisfaction*

Variables	Chi-Square Tests	ANOVA	t Test
Gender & Job Satisfaction	89.020 (0.45)	NA	0.798 (0.42)
Gender & Organizational Commitment	89.020 (0.45)	NA	-0.251 (0.80)
Position & Job Satisfaction	88.865 (0.45)	NA	-1.193 (0.23)
Position & Organizational Commitment	88.865 (0.45)	NA	-0.770 (0.44)
Participation to CSR Projects & Job Satisfaction	90.221 (0.41)	NA	0.384 (0.70)
Participation to CSR Projects & Organizational Commit.	90.221 (0.41)	NA	1.036 (0.30)
Age & Organizational Commitment	176.268 (0.48)	1.269 (0.28)	NA
Age & Job Satisfaction	176.268 (0.48)	0.063 (0.93)	NA
Education & Organizational Commitment	177.865 (0.44)	2.088 (0.12)	NA
Education & Job Satisfaction	177.865 (0.44)	0.3 (0.74)	NA
Working Time & Organizational Commitment	178.067 (0.44)	1.641 (0.19)	NA
Working Time & Job Satisfaction	178.067 (0.44)	0.221 (0.80)	NA

* The values in parenthesis show p values of the mean differences between the two categories, i.e. job satisfaction mean values of women and men.

Next, the possible differences across various age levels and working times are investigated. The results conclude the null hypothesis of no difference, since the p values are much higher than all acceptable significance levels. In other words, organizational commitment and job satisfaction levels created by the CSR projects do not change depending on the different age levels and working times for an organization. As pointed out by Peterson (2004) and many others, age is not an effective factor on the evaluation of the companies' voluntary responsibilities by employees. Our findings are also in line with these studies.

From the education level comparisons, one may observe that the alternative hypotheses suggesting that a significant difference in the organizational commitment and job satisfaction level across employee education levels; are not supported. This finding is along the lines of Dubinsky and Ingram, and Harris Kidwell and Serwinek indicating that education level is not a determinant of ethical behaviors (Ekin and Tezölmez, 1999).

From the p values of both chi square test and ANOVA, one may observe that CSR based organizational commitment and job satisfaction levels do not change according to the various positions in a company. In fact, the previous literature, for instance Ostlund cannot show a difference in the CSR perceptions of high and middle

level managers as well. Consistent with our findings, Izareli indicates no managerial ethical perception differences among diverse company positions (Marz, 1999).

Last but not least, the differences in the organizational commitment and job satisfaction levels created by CSR projects based on actual participation are examined. Following the p values of Table 1, the null hypotheses cannot be rejected. No difference differences in the organizational commitment and job satisfaction levels can be detected.

Although the results of this study are consistent with the previous literature, one may explain the reasons behind the insignificant findings as follows: organizational commitment and job satisfaction levels are affected by the institutional and social factors as well as individual ones. Therefore, one may argue that CSR perception explanations based on only individual levels are not sufficient. Institutional based factors such as organization culture, communication inside the organization, institutional policies and human resources can also be influential on the employees' perceptions. If an organization is successful to create a "family" environment independently from the individual characteristics, it is very likely that all of the family members can adopt the family values regardless of their age, education or family position. In this case, the individual differences in the family will vanish, but new common values among the family members will flourish.

As of 2012, TUPRAS is the largest company in Turkey with the highest level of exportation. It also occupies the third position in the profitability ranking. Since the privatization in 2005, TUPRAS has been a part of Koc Holding, the largest Turkish firm which holds the 307th ranking in Forbes 500 list. Moreover, both Koc Holding and TUPRAS are the pioneers in the CSR implementations. In the international area, companies' ethical accountability capacities are evaluated by the Account Ability organization. CSR Institute, the accredited institute of Account Ability in Turkey, assessed TUPRAS as the second in 2008. As it is clear from these rankings, TUPRAS makes great effort to implement the CSR consciousness and culture which includes all of the employees. Thus, CSR becomes a corporate perception beyond the individual opinions. The human resources policies that include labor force supply are mostly shaped according to this understanding.

On the other hand, communitarian culture characteristics are more dominant in Turkey relative to individualism. The central thought can mostly be expressed by "we" perception, instead of "I" perception. Hence, the perceptions regarding to social issues such as cooperation, solidarity, cultural unity are widely formed by society's common values, but not individual norms. Then, it is possible to conclude that these common cultural and social values are affective on the employees' similar perceptions.

CONCLUSION

CSR implementations have become an inseparable part of business making in today's business environment. This process has evolved from time to time and short lived activities to long lasting and continues implementations. In order to improve the company reputation particularly from the point of view of its employees and all of the stakeholders, the companies should accelerate the CSR implementations. Thus, companies can obtain a valuable tool that provides competition advantage. By the aid of CSR implementations, companies can fulfill the emotional and social expectations of the employees; and hence improve organizational commitment and job satisfaction.

This study assesses the CSR based job satisfaction and organizational commitment level differences across various individual factors, and concludes that these factors are not influential. This result can mostly explained by Turkey's cultural features as well as institutional efforts of TUPRAS in CSR implementations.

Further researches may consider the society's cultural values as an additional aspect besides institutional factors in the formation of employee CSR perceptions. In addition, to observe the institutional culture effect more clearly, these results can be compared to the ones that will be obtained from a company that is not active in CSR projects.

REFERENCES

- Adams, J. S. (1963). Toward an Understanding of Inequity. *Journal of Applied Psychology*, 76, 422-436.
- Bronn, P. S., Vrioni, A. B., & Belliu, A. (2001). Corporate Social Responsibility and Cause-Related Marketing: An Overview. *International Journal of Advertising*, Vol:20, No:2.
- Caldwell, D. F., Chatman J. A., & O'Reilly, C. A. (1990). Building Organizational Commitment: A Multiform Study. *Journal of Occupational Psychology*, Vol: 63.
- Carroll A. B. (1999). Corporate Social Responsibility: Evolution of a Definitional Construct. *Business Society*, Vol:38, No:3, 268-295.
- Davis, K. (1973), The Case for and Against Business Assumption of Social Responsibilities, *Academy of Management Journal*, Vol:16, No:2, 312-322.
- Davis, K. (1998). *İşletmelerde İnsan Davranışı*. İstanbul Üniversitesi İşletme Fakültesi Yayını, İstanbul.
- Drummond, H. (2000). *Introduction to Organizational Behavior*. New York, Oxford University Press.
- Dutton J., Dukerich J. M., & Harquail, C. (1994). Organizational Images and Member Identification. *Administrative Science Quarterly*, Vol:39, No:2.
- Ekin M. G., & Tezölmez H. (1999). Business Ethics in Turkey: An Empirical Investigation with Special Emphasis on Gender. *Journal of Business Ethics*, Vol:18, No:1.
- Freeman, E. (1984). *Strategic Management: A Stakeholder Approach*. University of Minnesota, London: Pitman Publishing.
- Gilder D., Schuyt T., & Breedijk M. (2005). Effects of Employee Volunteering Program on The Work Force: The ABN-AMRO Case. *Journal of Business Ethics*, Vol:61.
- Hair, J., Black, W., Babin, B. & Anderson, R. (2009). *Multivariate Data Analysis*. Prentice Hall.
- Herndon, N. C., John P. F., & Quey-Jen Y. (2001). An Investigation of Moral Values and the Ethical Content of the Corporate Culture: Taiwanese Versus U.S Sales People. *Journal of Business Ethics*, Vol:30, No:1.
- Ibrahim N. A., & Angelidis J. P. (1995). Effect of Board Members Gender on Corporate Social Responsiveness Orientation. *Journal of Applied Business Research*, Vol:10, No:4
- Koh, H. C., & Boo E. H. Y. (2004). Organizational Ethics and Employee Satisfaction and Commitment. *Management Decision*, Vol:42, No:5/6.
- Kotler, P., & Lee N. (2004), *Corporate Social Responsibility: Doing the Most Good for Your Company and Your Cause*, Hoboken, New Jersey: Wiley & Sons.
- Kreitner, R. & Kinicki, A. (2001). *Organizational Behavior*. New York: McGraw-Hill.
- Luthans, F. (1995). *Organizational Behavior*. McGraw-Hill, New York.
- Marz J. W. (1999). An Examination of The Relationship Between Corporate and Individual Characteristics and Social Orientation. Unpublished Doctoral Dissertation, Nova Southeastern University, School of Business and Entrepreneurship.

- Marz, J., Powers, T. L., & Queisser T., (2003). Corporate and Individual Influences on Managers Social Orientation. *Journal of Business Ethics*, Vol:46, No:1.
- May, T. Y., Korczynski, M., & Frenkel, S. J. (2002). Organizational and Occupational Commitment: Knowledge Workers in Large Companies. *Journal of Management Studies*, 39:6, 775-801.
- McDaniel C. & Schoeps N., Lincourt J., (2001), Organizational Ethics: Perceptions of Employees by Gender, *Journal of Business Ethics*, Vol:33, No:3.
- Moir, L., (2001), What Do We Mean by Corporate Social Responsibility, *Corporate Governance*, Vol:1, issue:2, 16-22.
- Morrow, P. (1983) Concept Redundancy in Organizational Research: The Case of Work Commitment. *Academy of Management Review*, 8, 486-500.
- O'Reilly & Chatman. (1986). Organizational Commitment and Psychological Attachment: The Effects of Compliance, Identification and Internalization on Prosocial Behavior. *American Psychological Association*, 71, 492-499.
- Peterson, D. K. (2004). Benefits of Participation in Corporate Volunteer Programs: Employees' Perceptions. *Personnel Review*, Vol :33, No:5/6.
- Peterson, D. K. (2004). The Relationship Between Perception of Corporate Citizenship and Organizational Commitment. *Business and Society*, Vol: 43, No: 3.
- Peterson, D. K. (2004). Recruitment Strategies for Encouraging Participation in Corporate Volunteer Programs. *Journal of Business Ethics*, Vol: 49.
- Preston, L. & O'Bannon D., (1997), The Corporate Social–Financial Performance Relationship: A Typology and Analysis” *Business and Society*, Vol: 36, No: 4, 419-429.
- Riordian, C. M., Gatewood, R. D., & Bill, J. B. (1997). Corporate Image: Employee Reactions and Implications for Managing Corporate Social Performance. *Journal of Business Ethics*, Vol:16.
- Robbins, S. P., & Coulter, M. C. (2002). *Management*. 7. Ed. New Jersey: Prentice Hall.
- Robins, S. P. (2000). *Managing Today*. Prentice-Hall, New Jersey.
- Satish, P. D. (1996). The Impact of Ethical Climate Types on Facets of Job Satisfaction: An Empirical Investigation. *Journal of Business Ethics*, Vol:15, No 6.
- Smith, N. C. (2003). Corporate Social Responsibility: Whether or How? *California Management Review*, Vol:45, No:4, 52-76.
- Swailles, S. (2004). Commitment to Change: Profiles of Commitment and in-Role Performance. *Personnel Review*, Vol:33, No:2, 187-204.
- Upham S. P. (2006). A Model for Giving: The Effect of Corporate Charity on Employees. *The Journal of Corporate Citizenship*, Vol:22.
- Valentine, S., Godkin L., & Lucero, M. (2002). Ethical Context, Organizational Commitment and Person-Organization Fit. *Journal of Business Ethics*, Vol: 41.
- Waddock, S., & Graves, S. (1997). The Corporate Social Performance-Financial Performance Link. *Strategic Management Journal*, Vol:38, No:4, 303-319.

FISCAL DEFICIT AND STOCK MARKET:EMPIRICAL EVIDENCE FOR TURKEY

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ABSTRACT

This paper aims to empirically investigate the relationship between fiscal deficit and stock market for Turkey. Variable for money supply is also included to the model in order to avoid any biases. Monthly time series data of Turkey for the period between January 2004 and September 2012 are used. Multivariate Granger causality tests based on VECM is employed to find the direction of the relationship. The results of these analysis show that there is a unidirectional causality between fiscal deficit and share prices from share prices to fiscal deficit both in the short-term and in the long-term. The causality between money supply and share prices are also unidirectional from money supply to share prices in both short run and long run. Finally, although there is unidirectional relationship between money supply and fiscal deficit from fiscal deficit to money supply in short-term, in the long run there is bidirectional causality between fiscal deficit and money supply. The findings of this paper provide input, which might be used by investors while investing in stock market, and might be used by policy makers while taking actions to manage with the fiscal deficit.

INTRODUCTION

Economic theory and empirical studies have shown that there is a bidirectional relationship between many macroeconomic variables and stock prices. Some of these variables that are widely investigated are money supply, inflation, and interest rate. Some studies assert that fiscal deficit also affects the stock prices via affecting some macroeconomic variables like interest rates. If government increases their borrowing to manage with the budget deficit, interest rates will increase, which will reduce the discounted value of cash flows of the share. Likewise, if they increase the taxes, expected returns of shares will diminish. Therefore, budget deficit has a negative effect on share prices (Laopodis, 2009). On the other hand, other researchers state that financial deficit does not have any impact as long as individuals leave their net worth unchanged by correctly expecting and discounting future tax rise from the existing tax decreasing (see Barro, 1974). So there is no consensus on the effect of fiscal deficit on stock market.

This paper aims to fill this gap by empirically investigating the relationship between fiscal deficit and stock market for Turkey. Multivariate Granger causality tests based on VECM is employed to find the direction of the relationship. Monthly time series data of Turkey for the period between January 2004 and September 2012 are used. In order to prevent any biases, money supply variable, which might be affected by the government actions that are taken to manage with the fiscal deficit, is also included to the model.

This paper proceeds as follows. The following section briefly explains the existing studies. Third section discusses the data, the methodology and reports the empirical results. The final section concludes.

LITERATURE REVIEW

In the literature, it has been argued and empirically presented that by affecting future dividends and discount rates, many macroeconomic variables affect stock prices. Moreover, studies have shown that this

relationship can be bidirectional (see Chen et al. 1986). Fiscal deficit, which is the concern of this paper, has an impact on macroeconomic variables; therefore, is expected to affect stock prices via affecting macroeconomic variables (see Osamwonyi and Osagie, 2012). Although Ricardian Equivalence Proposition, which states as long as individuals leave their net worth unchanged by correctly expecting and discounting future tax increasing from the existing tax decreasing fiscal deficit will not have any impact, studies have presented mix results (seen Barro, 1974; Boothe and Reid, 1989; Darrat, 1987).

A budget deficit, which is the excess amount of government expenditures over revenues, can be financed via five ways that are by increasing money supply, by borrowing from the public, by borrowing from the external sources, by drawing on external reserves, or by combining all these four methods (Burney and Akhtar, 1992). If the government buys Treasury securities in order to increase reserves, money supply will increase, which will have a positive impact on stock prices by lightening the interest rate pressure. On the other hand, if government tends to increase borrowing, the interest rate will increase, which causes a diminish of the expected returns of stocks (see Geske and Roll, 1983; Roley and Schall, 1988). Moreover, some studies state that future tax rate is expected to increase as a result of the rise in budget deficit, which will reduce stock prices since current consumption will decrease (see Hall and Taylor, 1993; Ball and Mankiw, 1995). To make long story short, in the theoretical literature, there is no consensus of the net effect of fiscal deficit on stock prices. Empirical findings are also not clear. Although some studies find direct relationship between budget deficit and interest rates (see Wachtel and Young, 1987), others are not able to find any relationship between budget deficit and interest rates (see Mascaro and Meltzer, 1983; Findlay, 1990).

As it is mentioned above, future monetary policy decisions are affected by the government actions that are taken to manage with the fiscal deficit. As an example, if government tends to increase spending, the interest rate will increase. This rise put pressure on economic growth, and government increase money supply in order to relieve this pressure. So, monetary policy variable should be explicitly added to the model that examines the relationship between fiscal deficit and stock market (Laopodis, 2009). The relationship between money supply and stock market is also debatable. According to the efficient market approach, money supply does not have any effect on stock prices as all past information about money supply is reflected in the current stock prices (see Cooper, 1974). On the other hand, the portfolio approach states that increase in the money supply will change the equilibrium position of investors between money and equities until they replace some of this excess money with other assets like equities (see Hamburger and Kochin, 1971). Furthermore, increase in the money supply is expected to rise inflation, and this reduce stock prices by making investors to invest in real assets rather than in financial assets. Empirical studies conduct for the developed countries also prove this negative relationship between money supply and stock prices (see Davidson and Froyen, 1982; Rozeff, 1994, Osamwonyi and Osagie, 2012).

As can be seen above, the existing literature cannot offer a clear conclusion about the impact of fiscal deficit on stock prices. Therefore, an empirical study should be employed to examine the relationship between budget deficit and stock prices in developing countries such as Turkey. To the best of our knowledge, this paper is the first study that explores the relationship between fiscal deficit, money supply, and stock market for Turkey.

DATA, METHODOLOGY, AND STATISTICAL RESULTS

Data

In this paper, times series methodology is employed for the econometric analysis of the relationship between stock market, government deficit, and monetary policy. The analyses consisted of three steps. In the first step, the order of integration of the series is obtained. The second step established the cointegration. In the final step, multivariate granger causality tests based on VECM procedure are applied to get the causal relationship between series. Monthly time series data of Turkey for the period between January 2004 and September 2012 are used. Data for fiscal deficit is provided from the official webpage of the Republic of Turkey Ministry of Finance, and data for other variables are obtained from OECD databank.

To assess the relationship between stock market, fiscal deficit and monetary policy, share price index, hereafter SHARE, is employed as an indicator of stock market. Fiscal deficit is measured by the difference between general government revenue and general government expenses, hereafter FISCAL. Therefore, increase

in this variable means reduction in the deficit, and vice versa. Finally, broad money as a percentage of GDP, hereafter MONEY, is employed as monetary policy indicator.

Unit Root Tests

Classical regression model assumes the stationarity of both dependent and independent variables, and errors with zero mean and finite variance. Therefore, in order to avoid spurious regression and invalid results, the stationarity characteristics of the variables are examined via the unit root tests. Rejecting the null hypothesis of these tests indicates variables are integrated of order 0, in other words they are stationary. The order of integration shows the number that a series have to be differenced to become stationary.

In this paper augmented Dickey-Fuller (ADF) (Dickey and Fuller, 1979), generalized least squares (GLS)- detrended Dickey-Fuller (DF-GLS), and Phillips-Perron (PP) (Phillips and Perron, 1988) are employed to test stationarity characteristics of series. The lag lengths are determined by the Akaike Information Criterion (AIC). The results of unit root tests are shown in Table 1 and Table 2 for levels and first-differences, respectively. The results indicate that we are not able to reject the null hypothesis of the unit root tests for all variables; however, the null hypotheses of the unit root tests are rejected for all variables in the first differences. Thus, it is concluded that all series are integrated of order one, I(1), and therefore, it is proper to continue to test for cointegration between these series.

Table 1: Unit root test results (Levels)

		ADF		DF-GLS		PP
		Statistics	Lag	Statistics	Lag	
SHARE	Intercept	-1.4583	3	0.0284	1	-1.2364
FISCAL		-1.1665	11	-0.773	11	-11.9313
MONEY		1.9255	4	2.0367	3	2.2107
SHARE	Intercept and Trend	-3.0777	5	-3.0077 ^c	5	-2.215
FISCAL		-1.96	11	-1.116	11	-12.1034
MONEY		-1.7833	4	-0.8014	4	-1.7245

Superscripts a, b, and c represent significance at 1%, 5%, and 10%, respectively. ADF, DF-GLS, and PP refer to Dickey-Fuller, Dickey- Fuller GLS detrended, and Phillips-Perron, respectively. Lag lengths are determined by Akaike Information Criterion (AIC). SHARE, FISCAL, and MONEY refer to share price index, fiscal deficit, and M2 as a percentage of GDP, respectively

Table 2: Unit root test results (First-Differences)

		ADF		DF-GLS		PP
		Statistics	Lag	Statistics	Lag	
SHARE	Intercept	-8.4163 ^a	0	-8.2350 ^a	0	8.4226 ^a
FISCAL		-6.7468 ^a	10	0.0414	15	108.9723 ^a
MONEY		-4.4913 ^a	2	-3.2233 ^a	2	-9.7875 ^a
SHARE	Intercept and Trend	-8.3747 ^a	0	-8.3455 ^a	0	-8.3811 ^a
FISCAL		-6.7419 ^a	10	-1.2962	12	-116.0802 ^a
MONEY		-5.3032 ^a	3	-4.9972 ^a	3	-10.2177 ^a

Superscripts a, b, and c represent significance at 1%, 5%, and 10%, respectively. ADF, DF-GLS, and PP refer to Dickey-Fuller, Dickey- Fuller GLS detrended, and Phillips-Perron, respectively. Lag lengths are determined by Akaike Information Criterion (AIC). SHARE, FISCAL, and MONEY refer to share price index, fiscal deficit, and M2 as a percentage of GDP, respectively.

Cointegration Tests

In order to examine the long-run relationship between share prices, fiscal deficit and money supply, cointegration test is applied. Since all variables are integrated of order 1, Johansen and Juselius (1990) cointegration test can be employed which requires the variables to show same order of integration. This test based on the vector autoregression (VAR) of order p, which can be shown as:

$$x_t = \mu + \Pi_1 x_{t-1} + \Pi_2 x_{t-2} + \dots + \Pi_p x_{t-p} + \varepsilon_t \quad (1)$$

where x is a 3x1 vector including SHARE, FISCAL, and MONEY, constant terms are shown by 3x1 vector of μ , coefficient matrices are represented by (3x3) matrices of $\Pi_1, \Pi_2, \dots, \Pi_p$, and ε is a (3x1) vector of error terms that have zero mean and constant variance. This VAR can be rearranged as:

$$\Delta x_t = \mu + \sum_{t=1}^{p-1} \Delta x_{t-1} + \Gamma x_{t-p} + \varepsilon_t \quad (2)$$

where $\Gamma = -I + \Pi_1 + \dots + \Pi_p$. Matrix of Γ determines the long-term relationship between variables and its rank is same as the number of independent cointegrating vectors presented by r. If r is equal to 0, the equation 2 is a standard VAR in first difference since the components of x are non-stationary. On the other hand, if r=n, then x are stationary. In case of r=1, Γx_{t-p} is the error-correction factor. Finally, there are several cointegration factors if $1 < r < n$. Significance of characteristic roots of Γ gives the number of distinct cointegration vectors (see Johansen, 1991, 1995).

Lag length determination is an important part of cointegration test as while insufficient lag length might cause a rejection of the null hypothesis that state no cointegration, over length might result with loss of power. The optimal lag length is selected as by using LR and Akaike information criteria (AIC).

Johansen and Juselius cointegration test results for SHARE, FISCAL, and MONEY is shown in Table 3. According to this table, while the trace eigenvalues state that there are three cointegration equations at five percent significance level and one cointegration equation at one percent significant level, max-eigenvalues state that there is one cointegration equation at five percent significant level. This finding confirms that there is a long run, systematic relationship between stock returns, fiscal deficit, and money supply in Turkey. Moreover, this finding suggests that there is causality in at least one direction.

Table 3: Cointegration test results (Lag=5)

H ₀	λ_{trace}	5%	λ_{max}	5%	Eigenvalues
r = 0	42.2053**	29.68	23.3137*	20.97	0.2098
r ≤ 1	18.8917*	15.41	13.7869	14.07	0.1299
r ≤ 2	5.1048*	3.76	5.1048*	3.76	0.0503

The optimal lags are determined according to the LR, and Akaike Information Criterion (AIC). Critical values are sourced from Osterwald-Lenum (1992)

Granger Causality Tests

As it is mentioned above, finding cointegration between variables suggests the existence of Granger causality. In order to determine the direction of Granger causality of cointegrated variables, vector Error Correction Model (VECM) is employed rather than VAR (Granger, 1988). Moreover, by using this model, short-term and long-term causalities can be separated.

The model used in this paper is as follows:

$$\Delta SHARE_t = \mu_1 + \sum_{k=1}^r \eta_{1,k} ECT_{k,t-1} + \sum_{i=1}^n \alpha_{1,i} \Delta SHARE_{t-i} + \sum_{i=1}^n \beta_{1,i} \Delta FISCAL_{t-i} + \sum_{i=1}^n \delta_{1,i} \Delta MONEY_{t-i} + \varepsilon_{1,t} \quad (3)$$

$$\Delta FISCAL_t = \mu_2 + \sum_{k=1}^r \eta_{2,k} ECT_{k,t-1} + \sum_{i=1}^n \beta_{2,i} \Delta FISCAL_{t-i} + \sum_{i=1}^n \alpha_{2,i} \Delta SHARE_{t-i} + \sum_{i=1}^n \delta_{2,i} \Delta MONEY_{t-i} + \varepsilon_{2,t} \quad (4)$$

$$\Delta MONEY_t = \mu_3 + \sum_{k=1}^r \eta_{3,k} ECT_{k,t-1} + \sum_{i=1}^n \delta_{3,i} \Delta MONEY_{t-i} + \sum_{i=1}^n \beta_{3,i} \Delta FISCAL_{t-i} + \sum_{i=1}^n \alpha_{3,i} \Delta SHARE_{t-i} + \varepsilon_{3,t} \quad (5)$$

where ECT is the error correction term resulting from the long-run cointegrating relationship, μ s are intercept terms, η , α , β and δ are coefficients to be estimated, t and i denotes the period and lags respectively, and ε is the error term. LR and Akaike Information Criteria (AIC) are used as lag length determination criteria.

Table 4 shows the multivariate Granger causality tests results. ECT of fourth equation, in which the fiscal deficit is dependent variable, is significantly different from zero, which states fiscal deficit reacts to a deviation from long-run equilibrium. On the other hand, error correction terms in the third and fifth equations are not significantly different from zero, so share price and money supply do not share the burden of adjustment to a long-term equilibrium. Findings state that, unlike the literature, both short-term and long-term impact of fiscal deficit on share prices do not seem to be significant for Turkey. Money supply is significantly Granger causing for increase in share prices in both short-term and long-term. However, it is not significant Granger cause of fiscal deficit in short-term. On the other hand, in the long run, the money supply is significantly Granger causing the fiscal deficit. Fiscal deficit is a Granger cause of money supply both in the short and long run. This finding state that the government tend to increase money supply due the fiscal deficit in the short term; however, fiscal deficit do not respond immediately and it takes time that money supply will be Granger cause to reduce fiscal deficit. Moreover, share price is a significant Granger cause of fiscal deficit in the short-term and long-term, however share price is not a Granger cause of money supply both in short and long term. Unidirectional relationship between share price and fiscal deficit can be inferred as increase in the share prices reduce the demand of investors on the T-bills, which decrease the revenue side of the government, and consequently increase the fiscal deficit.

Table 4: Granger causality tests based on VECM results

Dep. Var.	Short-term F-statistics			ECTs	Long-term joint F-statistics		
	SHARE	FISCAL	MONEY	ECT _{1,t-1}	ECT _{it-1, SHARE}	ECT _{it-1, FISCAL}	ECT _{it-1, MONEY}
SHARE		0.4157	3.4293 ^b	-0.0026 (-0.1001)		0.3499	2.7446 ^b
FISCAL	3.6328 ^a		1.8276	-1.2512 ^a (-5.1272)	8.2903 ^a		6.8247 ^a
MONEY	1.9926	2.2069 ^c		0.0031 (0.8141)	1.5015	2.9437 ^b	

ECTs were obtained by normalizing the cointegrating vectors. The values in parenthesis are t-statistics. Superscripts a, b, and c represent significance at 1%, 5%, and 10%, respectively. The optimal lags are determined according to the LR, and Akaike Information Criterion (AIC). SHARE, FISCAL, and MONEY refer to share price index, fiscal deficit, and M2 as a percentage of GDP, respectively.

CONCLUSION

This paper empirically studied the relationship between fiscal deficit, monetary policy and stock market. To this end, multivariate Granger causality tests based on VECM is employed for Turkey. Monthly data for the period between January 2004 and September 2012 are used. By using Johansen and Juselius cointegration test, it is found that there is one cointegration equation at five percent significance level. This finding approves that there is a long-run systematic relationship between stock returns, fiscal deficit, and money supply in Turkey. Moreover, this finding suggests that there is causality in at least one direction. Multivariate Granger causality tests based on VECM approach assert that both in short and long run, there is unidirectional relationship between share prices and fiscal deficit from share prices to budget deficit. This finding can be interpreted as increase in the share prices makes it preferable than the treasury bills so demand for the T-bills

decreases. As it is one way to reduce the fiscal deficit, government revenues from T-bills reduces. The causality between money supply and share prices are also unidirectional from money supply to share prices in both short run and long run. Although there is unidirectional relationship between money supply and fiscal deficit from fiscal deficit to money supply in short-term; in the long run there are bidirectional causalities between fiscal deficit and money supply. This last finding can be interpreted as, due to the fiscal deficit, government tends to increase money supply in the short-run, however increase in the money supply does not cause to diminish fiscal deficit in short run.

This paper contributes to the literature by examining the relationship between fiscal deficit, monetary policy, and stock market in Turkey. The findings of this paper provide input, which might be used by investors while investing in stock market, and might be used by policy makers while taking actions to manage with the fiscal deficit.

REFERENCES

- Ball, L., and Mankiw, N. G. (1995), "What Do Budget Deficits Do?" *Harvard Institute of Economic Research Working Papers 1740*, Harvard - Institute of Economic Research.
- Barro, R.J. (1974), "Are Government Bonds Net Wealth?" *Journal of Political Economy*, vol.82, pp.1095-1117
- Boothe, P.M., and Reid, B.G. (1989), "Asset returns and government deficits in a small open economy: empirical evidence from Canada", *Journal of Monetary Economics*, vol.23, pp.65-77.
- Burney, N. A., and Akhtar, N. (1992), "Government Budget Deficits and Exchange Rate Determination: Evidence from Pakistan", *The Pakistan Development Review*, vol.31 (4), pp.871-882
- Chen, N., Roll, R., and Ross, S. A. (1986), "Economic Forces and the Stock Market", *Journal of Business*, vol.59, pp.529-403
- Cooper, R.B.L. (1974), "Efficient capital markets and the quantity theory of money", *Journal of Finance*, vol.29, pp.383-403
- Darrat, A. F. (1987), "Money and stock prices in West Germany and the UK: is the stock market efficient?", *Quarterly Journal of Business and Economics*, vol.26, pp.20-35
- Davidson, L. S., and Froyen, R. T. (1982), "Monetary policy and stock returns: are stock markets efficient?," *Federal Reserve Bank of St. Louis*, issue. march, pp.3-12
- Dickey, A. D. and Fuller, W. A. (1979), "Distribution of the Estimators for Autoregressive Time Series with a Unit Root", *Journal of the American Statistical Association*, vol.74, issue.336, pp. 427-431
- Findlay, D. W. (1990), "Budget Deficits, Expected Inflation, and Short-Term Real Interest Rates: Evidence from the US", *International Economic Journal*, vol.4, pp.41-53
- Geske, R., and Roll, R. (1983), "The fiscal and monetary linkage between stock returns and inflation", *Journal of Finance*, vol.38, pp.7-33
- Granger, C. W. J. (1988), "Causality, Cointegration, and Control", *Journal of Economic Dynamics and Control*, vol.12, pp.551-559
- Hall, R. E., and Taylor, J. B. (1993), " *Macroeconomics*", 4th Edition, New York
- Hamburger, J., and Kochin, L. (1971), "Money and stock prices; the channels of influence", *Journal of Finance*, vol.26, pp.1056-66

- Johansen, S. (1991), "Estimation and hypothesis testing of cointegration vectors in Gaussian vector autoregressive models", *Econometrica*, vol.59, pp.1551-1580
- Johansen, S. (1995), "Likelihood-based inference in cointegrated vector autoregressive models" (Oxford: Oxford University Press)
- Johansen, S., and Juselius, K. (1990), "Maximum Likelihood Estimation and Inference on Cointegration with applications to the Demand for Money", *Oxford Bulletin of Economics and Statistics*, vol.52, pp.169-210
- Laopodis, N. T. (2009), 'Fiscal Policy and Stock Market Efficiency: Evidence for the US', *The Quarterly Review of Economics and Finance*, vol.49 (2), pp.633-650
- Mascaro, A., and Meltzer, A. H. (1983), "Long and Short Term Interest Rates in a Risky World", *Journal of Monetary Economics*, vol.10, pp.151-200
- Osamwonyi, I. O., and Osagie, E. I. (2012), "The Relationship between Macroeconomic Variables and Stock Market Index in Nigeria", *Journal Economics*, vol.3(1), pp.55-63
- Phillips, P.C.B. and Perron, P. (1988), "Testing for a unit root in time series regression", *Biometrika*, vol.75, issue.2, pp.335-346
- Roley, V. V., and Schall, L. D. (1988), "Federal Deficit and the Stock Market", *Federal Reserve Bank of Kansas City Economic Review*, pp.17-27
- Rozeff, M. S. (1994), "Money and stock prices", *Journal of Financial Economics*, pp.65-89
- Wachtel, P., and Young, J. (1987), "Deficit Announcements and Interest Rates", *American Economic Review*, vol.77, pp.1007-1012

FROM RESTORING AMERICAN COMPETITIVENESS TO REENERGIZING GLOBALIZATION: FROM WHAT WASHINGTON NEEDS TO DO TO ISSUES THE WORLD NEEDS TO BE CONCERNED ABOUT NOW

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ABSTRACT

In 2012, under the direction of Professor Michael Porter, the Harvard Business School completed an elaborate study entitled Competitiveness at a Crossroads: Findings of Harvard Business School's 2012 Survey on U.S. Competitiveness. Among other research tools the study surveyed about 10,000 executives who over many years graduated from Harvard's MBA programs. Among the accomplishments of the study is the creation of a set of eleven proposals related to actions to be taken by the business community in working toward the goals of not just maintaining but enhancing America's economic competitiveness. After a brief consideration of the proposals, this paper turns to considering a series of challenges related to conditions and practices that inhibit business and economic performance not only in the U.S. but also in many countries of the globe.

INTRODUCTION

In 2012, under the direction of Professor Michael Porter, the Harvard Business School completed an elaborate study entitled Competitiveness at a Crossroads: Findings of Harvard Business School's 2012 Survey on U.S. Competitiveness. Among other research tools the study surveyed about 10,000 executives who over many years graduated from Harvard's MBA programs. Among the accomplishments of the study is the creation of a set of eleven proposals related to actions to be taken by the business community in working toward the goals of not just maintaining but enhancing America's economic competitiveness.

GUIDELINES FOR CORPORATE ACTIONS

The eleven recommendations that are to be implemented not only by the business community as a whole but, to as great an extent as possible, by individual corporations also was:

1. Improve the competitiveness of the regional clusters in which your company operates.
2. Initiate improvements in the general business environment in your geographic region.
3. Upgrade the skills and productivity of your workforce through enhanced and expanded internal training programs.
4. Make your workers more employable both by your and other companies through the use of internships in formal apprenticeship training programs.
5. Join technical schools, community colleges and universities in offering programs that target the skill needs of your corporation and then commit to hiring graduates from these programs.
6. Purposefully work toward increasing sourcing from local, regional and domestic suppliers.
7. Help local suppliers to upgrade their capabilities so that they will become more useful collaborators for your firm and your firm becomes a more valuable and steady customer.

8. Collaborate with firms in your industry as well as with centers of research to develop improved products and future technologies.
9. Support startup companies relevant to your enterprise.
10. Repatriate from foreign venues business activities that can be gainfully pursued within the U.S.
11. Support and participate in efforts in favor of laws and regulations that enhance the nation's business environment in general and not just in those efforts that focus only on your specific firm and industry.

GUIDELINES FOR ACTIONS BY THE FEDERAL GOVERNMENT

Somewhat after the completion of this project Professor Porter and his co-author Jan Rivkin released another agenda for action under the title *What Washington Must Do Now*. The eight proposals included:

1. Ease immigration of highly skilled individuals.
2. Simplify the corporate-tax code.
3. Tax overseas profits only where they are earned.
4. Address trade distortions.
5. Simplify regulation.
6. Enact a multi-year program to improve infrastructure.
7. Agree on a framework for developing shale gas and oil.
8. Create a sustainable federal budget.

In the course of discussions and interviews, Dr. Porter emphasized that we (the U.S.) know for quite some time that these need to be done, that we know how to do them and yet somehow we don't seem to be able to get them done.

FACING CHALLENGES IN THE GLOBAL BUSINESS ENVIRONMENT

The practices may generate favorable levels of income to those who are engaged in them but cause misallocations of resources, reductions in potential outputs and contributions to national incomes, may add to inefficiencies or impede the accomplishment of environmentally sustainable economic growth, present threats to national and global financial markets and curtail transparency and ethical conduct in business and regulatory procedure.

The issues to be identified and discussed in this presentation include:

1. Financial services as money manipulating activities for the sake of creating fees-paying financial transactions rather than for financing real investments or the costs of operations.
2. The overestimation of real GDPs due to the large size of the unproductive portions of the financial sector such as the multi-trillion dollar volume of monthly foreign exchange conversions and also the misalignments of exchange rates.
3. The growth of the unreal economy through the vast growth of the information and communications sectors which at substantial total cost generate information and communications that have more entertainment than production increasing impacts.
4. Absurdities in the original Kyoto Protocol that left out from assigning environmental responsibilities to countries with huge populations and rapidly growing economies and even greater absurdity may be that these exemptions continue even now.
5. The challenges associated with unbalanced population growths with some countries having much too low population growth rates to assure an adequate labor force for the future while some other countries continue to have rapid additions to their populations whom they are unable to employ.
6. The amazing potential of increased savings rates as a partial solution to the challenges of low population growth.
7. Value creation through construction and the production of real assets versus value creation through changing numbers: the construction industry versus the numbers industry.

8. The lower utility of foreign direct investments when host countries interfere with or limit profit repatriation.
9. The perpetual threats of restructurings and defaults in debt markets: the devastating interactions of unworthy borrowers, irresponsible lenders, and incapable regulators.
10. Warning: The simultaneous interaction of all three forces (unworthy borrowers, irresponsible lenders, and incapable regulators) can result in the near collapse of the financial stability of the borrowing institution or country. In this case, even cooperative approaches by all three groups may not be sufficient to avoid enormous economic dislocations or societal chaos. The dislocations may be so severe that remedial measures can take years to implement and neither the unworthy borrowers nor the incapable lenders will be able to avoid incurring enormous losses.
11. The need to redefine the missions, goals and purposes of corporations:

The process of economic growth was transformed from the manufacturing of products and the construction of buildings to the manufacturing of numbers and the construction of inflated forecasts, leading to imagination-and-fantasy-based rather than reality-based expectations. Unrealistic expectations led to reckless and irresponsible conduct and actions by private individuals, by corporations, by financial institutions, by legislators and government administrators at the local, state, federal and international levels. The bigger the corporation, the bigger the financial institution, the bigger the government the more reckless, the more irresponsible, the more damaging the behavior was likely to become.

Does the rise of prices on equity markets partially brought about by the near zero interest rate monetary policies of the Federal Reserve Bank and other Central Banks constitute a victorious return of the numbers sector of the economy?

CONCLUSION

There is a great need for cooperation between academic communities and business communities to work toward a more productive and ethically stronger framework for the global business system.

REFERENCES

- Porter, M., and Rivkin, J. (2012). "What Washington Must Do Now". *The Economist: The World In 2013*. Nov 21st 2012.
- Porter, M., Rivkin, J. and Kanter, R. (2013). *Competitiveness at a Crossroads: Findings of Harvard Business School's 2012 Survey on U.S. Competitiveness*. Cambridge: Harvard Business School, February 2013.
- Vambery, R. G., Mayer, P. (2012). In Nejdet Delener, Leonora Fuxman, F. Victor Lu and Susana Rodrigues (Ed.), *Mapping The Global Future: Evolution Through Innovation And Excellence*, "A Newly Emerging Economic World Order And Its Implications For Global Business: The Challenges To Free Market Oriented Enterprises From The Ever Greater Role Of Government And State Owned Corporations". Huntington Station, New York: Global Business and Technology Association, Vol. 2012, pp. 1008-1010.

FACTORS CONTRIBUTING TO A LONG TERM TALENT DEVELOPMENT FOCUS FOR UNIVERSITY ATHLETES

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ABSTRACT

Talent development in sport is a complex process involving the interaction of multidisciplinary aspects that directly and/or indirectly affect athletic progression and performance. The purpose of this study was to identify factors that contribute to a long term talent development focus so that the success of university athletes in South Africa is increased. Athletes over the age of eighteen years, who qualified to compete under the auspices of University Sport South Africa, were requested to complete the Talent Development Environment Questionnaire for Sport (TDEQ). Included in the questionnaire were twenty four items specifically measuring the extent to which athletes are exposed to development opportunities designed to form foundations for long term success rather than preparation for short-term results-driven outcomes. The results of the study revealed that five factors influenced the advancement of a long-term talent development focus which included the following: training support, coach guidance, skills development focus, work ethic and training goals. These factors are highly predisposed by the coach. Subsequently an implicit need for a theoretical model of effective sport coaching practice would be highly beneficial in providing coaches with the necessary knowledge required to provide a conducive developmental environment for athletes.

INTRODUCTION

Talented athletes have enjoyed remarkable attention throughout the ages (Abbot *et al.*, 2002, Arnot & Gaines, 1984; Vaeyens *et al.*, 2008). The lucrative incentive of financial gain both for the athlete and the investor has long since been the driving force behind numerous talent development projects (Bloomfield *et al.*, 1994; Vaeyens *et al.*, 2008; MacCurdy, 2010) and this has also been the case at Universities (Martindale *et al.*, 2005). The optimization of a talent development environment in which talented athletes could be fostered has also enjoyed much attention in recent years (Abbot *et al.*, 2002; Baker *et al.*, 2003; Vaeyens *et al.*, 2008). Administrators, coaches, parents and athletes realize that not only is the talent development process throughout the many different performance stages of utmost importance, but so too is the specific talent development focus from which the athlete is nurtured (Bloom, 1985; Côté, , 1999; Gould *et al.*, 2002; Jowett & Cockerill, 2003). However, because of the multi dimensional approaches of researchers regarding talent development processes to date, it was difficult to find a coherent approach to a successful talent development environment (Martindale *et al.*, 2010; Phillips *et al.*, 2010). In their efforts to clarify generic individual and environmental factors that are causative of effective and successful talent development, Martindale *et al.*, (2010) developed an integrated, holistic and systematic model with key features and key methods for effective talent development procedures. These key features describe the environment and focus needed in order to nurture and develop talent effectively.

Long-term talent development focus

Key features from the Martindale *et al.* (2010) model include aspects such as 1) Long term aims and methods, 2) Wide ranging coherent messages and support, 3) Appropriate development and 4) Individual and ongoing development. These key features indicate that a long term focus is required to become a successful athlete at elite

level (Bloom, 1985; Starkes *et al.*, 1996; Smith, 2003) as well as that long-term focus requires effective, integrated goals set to direct a variety of crucial aspects to ensure a processes that will guide athletes in achieving long-term results (Martindale *et al.*, 2005; Smith, 2003). It has often been the case that talented athletes focused too much on short term performance and success as opposed to learning (Ericsson, 1998; Balyi, 2002), which, at times, ignores crucial long-term development experiences (Zatsiorsky, 1995; Côté & Hay, 2002;). Ensuing from this scenario is not only the failure of athletes to make the transition to excel on a high performance level (Moore *et al.*, 1998), but also to reach their full potential (Bloom, 1985). Most university athletes are in a transition from junior to senior level and in some sports, may need a longer period for this progression to reach completion. According to Smith (2003), long-term development can span between 10-15 years of an athletes' competitive life, thus emphasizing the futile focus on short-term results. Once an athlete has reached the perimeter of advancing to the highest level of sport participation, another 6-8 years of competitiveness may be needed to truly succeed (Bompa, 1999; Balyi & Hamilton, 1999). Unfortunately, the pressure to perform and the rewards in short-term success often influence coaches to prioritize short-term training methods (Côté, *et al.*, 2003, Martindale *et al.*, 2005). Consequently their selection is based on athletes who can perform well at present even at the expense of that athlete's probable superior long-term potential (Martindale *et al.*, 2005).

Martindale *et al.* (2010) identified the need for long-term development opportunities afforded to athletes with the specific aim of holistic athlete talent development, clear long-term goals and the progression to senior level. Female athletes in sports such as gymnastics, figure skating, swimming and tennis may achieve their highest level of competition during their late teens or early twenties (the latter age representing that of university students) (Smith, 2003). However, athletes participating in rugby, soccer, volleyball, speed skating, distance running and cross country skiing tends to only achieve their full potential during their late twenties or early thirties (Smith, 2003), thus emphasizing the importance of a long-term development focus (Zatsiorsky, 1995). This study aimed to identify those factors which contributed to the long-term talent development focus among university athletes. Items from the TDEQ related to the long-term development focus factor include aspects that reflect a coach's own individual focus with regard to long-term athlete development. Consequently the coach's guidance, planning, mentoring, and co-operation with the athlete and other performance supplemental individuals involved with the individual athlete/team also come under the spotlight (Jowett & Cockerill, 2003; Martindale *et al.*, 2010). Effective communication, a variety of consistent opportunities, the coping with situational psychological pressure, the systematic development of physical components and the development of a long-term dedication attitude are also items indicative of the development of a long-term talent development focus.

PURPOSE OF THE STUDY

The purpose of this study was to identify factors that contribute to a long term talent development focus so that the success of university athletes in South Africa is increased.

METHODS AND PROCEDURES

An extensive literature study was conducted on the talent development environment and the influence of a long-term athlete development focus. The literature suggested that in order to research long-term talent development, a quantitative research approach was appropriate.

Sample

A non-probability sampling design in the form of convenience sampling was used to gather data for the study. The rationale for this approach was the fact that respondents were available and easily accessible and the data collection was less time consuming and inexpensive. While this approach has a shortcoming in terms of sampling errors and restrictions regarding generalizability, every attempt was made to overcome these by targeting a large sample (Sekaran, 2003). Student-athletes from two universities who participated competitively under the auspices of the University Sport South Africa (USSA) were recruited at random during their practice sessions at the different university stadia and after inter-university matches.

Instrument and Procedures

A two-section questionnaire was used to collect data for the study. Section A of the questionnaire comprised questions requesting demographic information of the participants. Section B of the questionnaire comprised the Talent Development Environment Questionnaire (TEDQ) (Martindale *et al.*, 2010). Twenty four items using a 6-point Likert-type scale anchored at 1 (strongly agree) and 6 (strongly disagree) were used to measure the long term talent development focus for developing athletes.

Trained research assistants using the same written protocol approached potential participants, explained the purpose of the study and requested their consent to participate in the study. Respondents were assured of anonymity and confidentiality and informed that they could terminate their participation at any time without any consequences.

Data analysis

The data was captured and analysed using the Statistical Package for the Social Sciences (SPSS – version 20). The data was analysed as follows: Firstly, descriptive statistics was conducted to describe the profile of the student athletes who participated in this study. Secondly, Cronbach alpha was used to ascertain the reliability of the long term development factor scale. Thereafter exploratory factor analysis was conducted to identify the factors which contributed to the long term talent development focus.

Results

Demographics

Of the 320 questionnaires that were distributed, 289 questionnaires were returned (response rate = 90%). Of the questionnaires which were returned 22 were incomplete. Hence, actual data analysis was conducted on 267 questionnaires.

Of the 267 participants, 50.6% ($n = 135$) were male and 49.4% ($n = 132$) were female with a distribution of different sporting codes as follows: rugby ($n = 52$), cricket ($n = 7$), hockey ($n = 40$), netball ($n = 30$), athletics ($n = 5$), body building ($n = 6$), basketball ($n = 44$), dance ($n = 14$), volleyball ($n = 18$), soccer ($n = 47$) and “other” ($n = 4$).

Exploratory factor analysis

The suitability of the data set for factor analysis was established using the the Bartlett’s Test of Sphericity and the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy. Both tests (KMO = 0.898; Bartlett’s Test of Sphericity (sig) = 0.00) were found to be acceptable to conduct factor analysis. Using Principal Component Analysis (PCA) together with the varimax rotation and a minimum eigen value of 1, five factors were identified. The Cronbach alpha reliability coefficients for the factors as well as their operational definitions are illustrated in Table 1.

Table 1. Cronbach alpha reliabilities of the first order factors and operational definitions

Factor	Cronbach Alpha	Operational definition
Training support	.803	Effective and coherent relationships sustaining the effort needed during training to provide quality practice, assuring development.
Coach guidance	.786	Direct, influential relationship that incorporates elevated levels of trust, communication and respect among coaches and athletes, aids operation at the highest levels of sport.
Skills development focus	.685	Early foundations set for future progressions, through a consistent focus on improvements instead of current outcomes.
Work Ethic	.688	Engagement in sport with raised levels of commitment, tenacity and intentional effort.

Training goals	.650	Engagement of deliberate practice necessary for the attainment of sport expertise, usually deliberately planned by coach and motivated by athlete.
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According to Nunnally (1978: 245), the recommended coefficient alpha to conclude that the proposed factors are reliable is 0.7. However, a study by Kim and Kim (1995) regarded a coefficient of 0.5 to 0.6 as sufficient to conclude that the extracted factors were reliable. Therefore, due to the exploratory nature of the study all the extracted factors (Cronbach alpha >.6) were retained for discussion purposes.

Discussion

The five factors that mainly contribute to the augmentation of a long term talent development focus among university athletes encompass various factors specifically concerning the coach. Aspects such as the direct coach relational influences on training support, projected at enhancing the acquisition of sport expertise were evident from the results as well as being underpinned by research (Baker *et al.*, 2003). The *training support* that is provided to the athletes is mirrored in the various roles which coaches perform. These include being an instructor, organizer, planner, counselor, communicator, trainer, appraiser and psychologist (Surujlal & Dhurup, 2011).

The *skills development focus* emerged as an important factor in long term talent development. This is supported by Jowett (2005:412) who views the coach-athlete relationship as the “foundation of coaching” which has a significant influence in promoting and enhancing the physical and mental skills of athletes in their charge. Furthermore the importance of the coach-athlete relationship is highlighted through the “*coach guidance*” factor, which elaborates the complementary role and task of the coach that significantly enhances the athlete even beyond the confines of sport (Jowett & Cockerill, 2003).

Coaches also increase athletes’ focus regarding skills development by creating appropriate and stimulating developmental training opportunities, aimed in progressing through stage specific and individualized levels, usually from junior to senior level (Vayens, 2008).

The fourth variable identified, integrate the athletes’ level of work ethic, mainly collaborating on their increased levels of effort, concentration, determination and commitment in exerting the required future training adaptations and performances for success (Baker *et al.*, 2003). Surujlal (2004) suggests that by coaches assuming both leadership and motivator roles, they are able to inculcate *work ethic* in their athletes.

The setting of *training goals* is an important function that the coach is required to perform. In this role it is the coach’s task to plan, organize, direct and control the activities of his/her charges towards the objective of winning or improved performance. Ericsson *et al.*, (1993) argues that training sessions should include the theory of “deliberate practice” which should result in specific training goals being incorporated. This can be accomplished through the meticulous planning of expert coaches, who in setting precision objectives for each practice session are able to foster optimal learning situations which will evidently become instrumental in the significant development of athletes (Baker *et al.*, 2003 & Voss *et al.*, 1983).

CONCLUSION

The purpose of the study was to identify the factors which contribute to long term talent development focus of university athletes. Five factors, namely *training support*, *coach guidance*, *skills development focus*, *work ethic* and *training goals* were extracted through factor analysis. The findings provide a useful insight into the factors that coaches need to consider in the long term talent development of athletes. The findings would be able to guide coaches to plan appropriately to create the ideal talent development environment for the long term progression of their athletes. Furthermore, the findings provide the opportunity for critical reflection by coaches regarding their current talent development environment.

REFERENCES

Abbot, A., Collins, D., Martindale, R., & Sowerby, K. (2002). Talent Identification and Development: An Academic Review. Edinburgh: **sportscotland**.

Annot, R. & Gaines, C. (1984). Sports talent. Viking Press: New York.

Baker, J., Horton, S., Robertson-Wilson, J., & Wall, M. (2003). Nurturing sport expertise: factors influencing development of elite athlete. *Journal of Sports Science and Medicine* 2, 1-9.

Balyi, I. (2002). Elite athlete preparation: the training to compete and training to win stages of long-term athlete development. In: Sport leadership. Montreal: Coaching Association of Canada.

Balyi, I., & Hamilton, A. (1999). Long-term planning of athlete development: the training to win phase. *FHS*, April, 3: 7-9.

Bloom, B.S. (1985). Developing talent in young people. New York: Ballantine.

Bloomfield, J., Blanksby, B.A., Ackland, T.R., & Elliot, B.C. (1994). The anatomical and physiological characteristics of pre-adolescent swimmers, tennis players and non-competitors. *Australian Journal of Science and Medicine in Sport*, 17: 19-23.

Bompa, T.O. (1999). Periodization: theory and methodology of training. 4th ed. Champaign (IL): Human Kinetics.

Côté, B. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist*, 13, 395-417.

Côté, J., Baker, J., & Abernethy, B. (2003). From play to practice: A developmental framework for the acquisition of expertise in team sports. In J.L. Starkes & K.A. Ericsson (Eds.), Expert performance in sports (p.88-110). Champaign, IL: Human Kinetics.

Côté, J., & Hay, J. (2002). Children's involvement in sport. A development perspective. In J.M. Silva & D. Stevens (Eds.). Psychological foundations of sport, (p484-502). Boston: Merrill.

Ericsson, K.A. (1998). The scientific study of expert levels of performance: General implications for optimal learning and creativity. *High Ability Studies*, 9, 75-100.

Ericsson, K.A., Kramé, R.T. & Tesch-Romer, C. (1993). The role of deliberate practice in the acquisition of expert performance. *Psychological Review* 100, 363-406.

Gould, D., Dieffenbach, K., & Moffet, A. (2002). Psychological characteristics and their development in Olympic champions. *Journal of Applied Sport Psychology*, 14, 172-204.

Jowett, S. (2005). The coach-athlete partnership. *The Psychologist*, 18(7), 412-415.

Jowett, S., & Cockerill, I.M. (2003). Olympic medalists' perspective of the athlete-coach relationship. *Psychology of sport and exercise*, 4, 313-331,

Kim, D., & Kim, S.Y. (1995). QUESEC: An instrument for assessing the service quality of sport centers in Korea. *Journal of Sport Management*, 6, 208-220.

MacCurdy, D. (2010). Player Development – 1993 – 2000 and beyond. *ITF Coaching and Sport Science Review*, 50(18), 7-8.

Martindale, R.J.J., Collins, D., & Daubney, J. (2005). Talent Development: A Guide for Practice and Research within Sport. *Quest*, 57, 353-375.

- Martindale, R.J.J., Collins, D., & Wang, J.C.K. (2010). Development of the Talent Development Environment Questionnaire for Sport. *Journal of Sport Sciences*, 28(11): 1209 – 1221.
- Moore, P.M., Collins, D., & Burwitz, L. (1998). The development of talent study. London: English Sports Council.
- Nunnally, J.C. (1978). *Psychometric theory*. New York: McGraw Hill.
- Phillips, E., Davids, K., & Portus, M. (2010). Expert performance in sport and the dynamics of talent development. *Sports Med*, 40 (4):271-283.
- Sekaran, U. (2003). *Research Methods for Business* (4th ed.). Hoboken, NJ: John Wiley & Sons.
- Smith, D.J. (2003). A Framework for understanding the training process leading to elite performance. *Sports Med*, 33(15): 1103-1126.
- Starks, J.L., Deakin, J.M., Allard, F., Hodges, N.J., & Hayes, A. (1996). Deliberate practice in sports: What is it anyway? In K.A. Ericsson (Ed.). *The road to excellence: The acquisition of expert performance in the arts, sciences, sport and games* (p81-106). Mahwah, NJ: Lawrence Elbaum.
- Surujlal, J. (2004). Human resources management of professional sports coaches. Unpublished Doctoral dissertation. Rand Afrikaans University: Johannesburg.
- Surujlal, J. & Dhurup, M. (2011). Athlete preference of coach's leadership style. *African Journal for Physical, Health Education, Recreation and Dance*, 18(1), 111-121.
- Vaeyens, R., Lenoir, M., Williams, A.M., & Philippaerts, R.M. (2008). Talent identification and development programmes in sport. Current models and future directions. *Sports Med*, 38(9):703-714.
- Voss, J., Green, T., & Penner, B. (1983). Problem solving in social sciences. In *The psychology of learning and motivation: Advances in research theory*. Ed: Bower G. New York: Academic Press. Vol 17, 165-130.
- Zatsiorsky, V.M. (1995). *Science and practice of strength training*. Champaign (IL): Human Kinetics.

THE SENSE OF ORGANIZATION IDENTITY (SoOI)... SYSTEMATICALLY INCHING FORWARD

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ABSTRACT

Current global dynamics promise to deliver a continuing turbulent business environment, in which the meaning of organizational competitiveness, success and sustainability will require constant redefinition. Against this, organization identity (OI), a popular yet abstract and ambiguous concept, is regarded as a long-term survival factor and a powerful source of stability and coherence. Indeed, Organization Identity Theory (OIT) proposes that organizational sustainability in the long term hinges on a strong and clear organization identity (OI). The current study, which operationalizes OI as the sense of organization identity (SoOI), extends earlier research and proposes and validates a measurement model for the SoOI. The resultant structural model means that this intangible organizational asset is now amenable to some measurement, offering diagnostic value and a means (identity) with which to navigate the change hurdles of future sustainability.

ORGANIZATIONAL SUSTAINABILITY: A CHALLENGE OF CHANGE AND IDENTITY

“The liability of change”¹ and organizational sustainability

Rapid, exponential advances in information and communication technology (ICT) have had a far-reaching impact on the business landscape - in particular the global movement of information, capital, resources, but also organizations (and social concerns and ideologies). It has in particular influenced the profile of emerging (diversified) workforces and new generation employees born into this era, the proliferation of multinational companies (MNCs) (Chao & Moon, 2005), and escalating annual migration (Koser & Laczko, 2010). These factors act as major drivers of global change and instability. While this signals continued and significant discontinuity in the operating contexts in which businesses pursue growth opportunities, it also implies evolving concepts of ‘performance’, ‘competitiveness’, ‘risk’, ‘success’ and ultimately ‘organizational sustainability’ (in this study the latter is essentially equated to *organizational longevity* with the declining life expectancy of organizations being one indicator – cf. De Geus, 1997; Van Tonder, 2004a). Inasmuch as the proliferation of multinational companies suggest a change in organizational ‘species’ (e.g. notions of the *post-bureaucratic, 21st century, new paradigm, networked and virtual organizations*), the nature of the emerging ‘new generation’ employee... his/her perspective, concept of work-life balance and, in particular, fundamental value set, signify similar discontinuity in the utility value of conventional management thinking and practice. Consequently, to contemplate institutional designs and approaches with which to harness opportunities in the late 21st century is to recognise that an entirely different frame of mind is required to engage this very different and constantly evolving business environment. Future organizational sustainability, *increasingly*, will be defined *more* by the prevailing context, concepts of organization and success, and profile of the employee **at that time** and less by our current understanding of these concepts. This poses a formidable challenge to management scholars and those institutions involved in educating business leaders of the future. Paradoxically though, while changes in the

operating context, the nature of the organization, the profile of the workforce and the ‘typical’ employee are substantial and evolving, currently taught management theory, though constantly re-contextualised, has hardly changed during the past three decades. Undoubtedly ‘historical’ organization and management theories in many situations remain relevant to a degree, but their explanatory power and predictive capability are rapidly diminishing... evidence of a paradigm approaching the limits of its useful life (consider, for example, conventional notions of ‘organizational culture’ applied to MNCs with their highly diversified multi-ethnic staff complements). The ‘search’ therefore would be for relevant organization and management theory with a firm perspective on *organizational longevity* i.e. for theory that has the latitude and versatility for ‘absorbing’ *era change*. Organization identity (see *Organization Identity Theory* – Van Tonder 1999, 2004ab) as *construct* but in particular as *theory* appears to reside at least partly in this conceptual space.

Organization Identity

Most often defined as the core, enduring and distinctive features of the organization (after Albert & Whetten, 1985), organization identity is increasingly recognized as a construct of substantial significance (e.g. Corley and Gioia, 2004; Corley et al., 2006; Dhalla, 2007). Indeed, it has been argued that *organization identity* would eventually eclipse *organizational culture* on grounds of its significant explanatory power in terms of organizational functioning and performance (cf. Van Tonder, 2011). This position is premised in part on the exponential growth in scholarly interest, and the observed shift in the Organization Identity (OI) discourse, which, for the greatest part since Albert and Whetten’s (1985) seminal paper, dwelled essentially at a tentative conceptual level. Empirical studies were rare and limited to the occasional case study. From the early 2000s onwards scholarly interest in this construct accelerated and spread beyond disciplinary boundaries, to the extent that organizational research incorporating identity and organization identity perspectives now proliferate. Indeed, the extant knowledge on the subject has assumed a complex, diversified character with debates beginning to assume a self-critical dimension (cf. Whetten, 2007) and theoretically probing more narrowly focused issues such as methodological challenges (e.g. cross-level dynamics – Ashforth et al., 2011). The escalating scholarly interest in *organization identity* nonetheless represents an interesting development, in particular as the paucity of empirical research remains tangible - a consequence of the many theoretical and methodological challenges that continue to plague attempts at empirical research (cf. Van Tonder, 2011). It is also a function of the abundance of alternative and/or novel perspectives that stem from this growing interest and which further confound rather than facilitate movement towards empiricism. Several distinct intellectual traditions can be discerned in the literature (Sugreen, 2012; Van Tonder, 1999) of which the most prominent are the *social identity approach* (Ashforth and Mael, 1996; Haslam, 2001; Haslam & Reicher, 2007; Haslam et al., 2003) and the so-called *classical approach*, which refers to studies that reveal parallels with or incorporates elements of a traditional (personal) identity perspective (after Erikson, 1959; 1968). Work that aligns with this approach includes, among other, Albert and Whetten (1985), Dutton and Dukerich (1991) and more recently work related to *Organization Identity Theory* (OIT) (Carstens, 2008; Sugreen 2012; Van Tonder, 1999; 2006; 2011). In general though, most of the many reported OI studies lack clear and coherent theory frameworks, which accounts for the paucity of both systematic theory-driven research and empirical research in respect of OI.

Organization Identity Theory (OIT) and the Sense of Organization Identity (SoOI)

The fundamental premise of OIT is that organization identity *tacitly* informs and directs organizational focus (e.g. operational decision making and resource allocation), which in turn drives behaviour and performance and facilitates long-term organizational sustainability. Sustainable and therefore change-resilient organizations are those that develop and maintain a strong and clear (appropriate) organization identity, while the converse will be true for organizations with weak or diffuse identities. From within an OIT framework *organization identity* is considered to be a tacit organizational self-description... a self-referential cognitive schema or meaning frame... embedded in individual (employee) cognitions of *who* and *what* the organization is (cf. Van Tonder 2011, p. 637). It comprises two interrelated and interdependent forms of identity, the first being the “fact of identity” (FoOI) which refers to those observable dimensions of the organization which, when viewed collectively, portrays the organization’s distinctive character (or otherwise) i.e. revealing it as a unique, enduring and unified entity. The second identity construct is the “sense of (organizational) identity” (SoOI), which refers to organizational members’ subjective awareness of the organization’s identity status – informed by the “fact of

organization identity” (FoOI). Both these constructs are tacit in nature and socially negotiated and constructed at a preconscious level.

During the past decade research in this tradition has systematically explored and affirmed various tenets of OIT and, in particular, the definitional parameters, existential nature and relevance of the OI construct(s) in terms of organizational functioning and performance (for an overview see Van Tonder, 2011). Exploratory factor analyses, for example, reveal the *Sense of Organization Identity* (SoOI) consistently as relating to perceptions of the organization’s enduring, unique and unifying qualities, but the ‘core’ dimension (cf. Albert and Whetten, 1985) did not surface as a meaningful component. Consistent with the exploratory focus of this research stage and the need to test the existential parameters of the OI constructs, studies were undertaken in different settings with diverse samples and methods (quantitative, qualitative and mixed methods designs), which ultimately precluded robust comparison and conclusions about the SoOI... signaling the need for research that probes beyond exploratory and boundary-defining objectives. Previous studies surfaced the main elements of the the FoOI and the SoOI but have not focused on the structural relations among these two identity forms and the various identity factors that feed into and reflect the identity constructs. This was the central focus of the current study: OIT proposes that employees’ preconscious awareness of the identity status of their organization (the SoOI) is determined by their tacit perception of those features of the organization that suggests it to be an enduring, distinctive, consistent and unified entity or otherwise (the FoOI). If organizational features convey it to be such, the resultant SoOI will manifest in a strong (certain) and clear sense of identity (SoOI), or the converse if the FoOI does not convey these features. The fundamental research question consequently was *to establish whether this theoretically-informed structure of the SoOI, when proposed as a measurement model, can be validated empirically?*

EMPIRICAL STUDY AND FINDINGS

Research Focus and Methodology

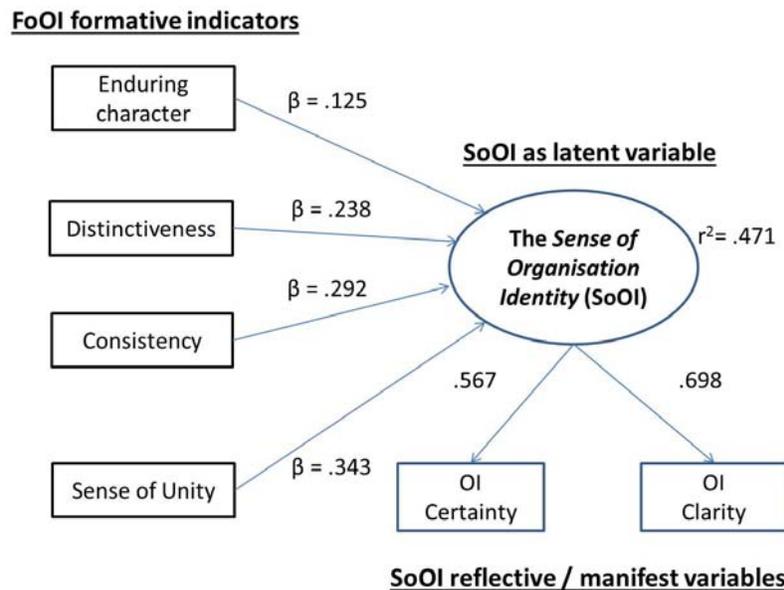
To test the structural relations and proposed measurement model for the SoOI i.e. examine the empirical validity of conceptualizing the SoOI in particular as a stand-alone or context-free formative construct, a cross-sectional study was undertaken. A previously used 21-item SoOI questionnaire that incorporates a 5-point Likert ‘agree-disagree’ response format was administered to an effective sample comprising 501 respondents from 49 organizations (on average 10 respondents per organization – typically a work unit that has recently undergone some form of change). Questionnaire items required respondents to indicate their views of their organization relative to similar institutions in the industry or sector and to do so in terms of several identity qualities (relating among other to founding member characteristics, organizational uniqueness, consistency in character, identity crises and organizational unity). Exploratory factor and principal component analyses and multilevel structural equation modeling (ML SEM) were performed². The data analysis process commenced with the development of a mixed measurement model and identified six groups of measurement items of which four (4) corresponded with the four facets of the FoOI (i.e., endurance, distinctiveness, consistency, and sense of unity), with a fifth group tapping into the SoI concept and the sixth relating to the six remaining indicators concerned with identity crises. Derived from OIT theory, the latent SoOI variable was then modelled with OI certainty (strength) and clarity and its correlation coefficients with each of the 13 items which denoted one of the four FoOI facets, were estimated, but also among the 13 items (to identify, for each of the four facets of the FoOI, the best formative indicator of the SoOI construct - ideal formative indicators should demonstrate large correlation coefficients with the SoOI, but small correlation coefficients with other formative indicators). Through this process three (3) alternative combinations of the four (4) formative indicators were identified and, as a result, three alternative SoOI measurement models were tested with ML SEM².

Findings

The best fitting of the three SoOI measurement models were retained and is presented in Figure 1 with each of the FoOI formative indicators and the SoOI reflective/manifest variables. Indicators and variables are presented as summaries of the relevant questionnaire items (goodness-of-fit statistics: $\chi^2(3) = 3.836$ ($p > .27$); CFI = .998, IFI = .998, and RMSEA = .034 (C.I. 90: .000-.116), with all model parameter estimates statistically significant ($p <$

.05)). The final measurement model comprises measurement items indicative of the *fact of organization identity* (FoOI) and which represent those attributes of the organization that contribute to a perception of endurance or enduring characteristics, uniqueness, consistency (in personality or character) and a sense of unity. These items collectively account for a significant proportion of the variance in the latent variable, the *sense of organization identity* (SoOI). Secondly, the SoOI can be measured through the reflective/manifest variables of *OI certainty* (strength) and *OI clarity*. Moreover, the formative variables (FoOI indicators) contribute disproportionately to the SoOI (as conveyed by the magnitude of the estimated path coefficients). The magnitude of the estimated path coefficients indicate that the ‘sense of unity’ was the most influential driver of the SoOI ($\beta = .343$, $t = 4.97$), followed by consistency ($\beta = .292$, $t = 5.75$), uniqueness ($\beta = .238$, $t = 4.88$), and enduring character ($\beta = .125$, $t = 2.80$).

Figure 1: Measurement model for the *Sense of Organization Identity* (SoOI)



Measured SoOI conveys the extent (in terms of certainty / strength and clarity) to which respondents / employees tacitly perceive the organization as possessing the qualities indicated as FoOI formative indicators. Variation in the SoOI consequently serves a diagnostic role (in terms of the FoOI, indicators) and has predictive power (see research on the relationship of SoOI and organizational performance measures – Sugreen, 2012, Van Tonder, 1999; 2006).

Theoretical and Empirical Contribution

The significance of the findings resides primarily in the domain of theory testing and extension and specifically through the empirical support it provides for several fundamental tenets of Organization Identity Theory (OIT) (Van Tonder, 1999, 2004a, 2006). It firstly reaffirms the existential nature of the Organization Identity construct. Secondly, the theoretical premise that OI comprises two constituting, interrelated and interdependent forms of identity – the fact of organization identity (FoOI) and the sense of organization identity (SoOI) - is empirically supported. Employees accordingly gain a sense of the organization’s identity (the SoOI) from their tacit awareness of organizational features that convey the organization’s enduring nature, its distinctiveness (uniqueness) relative to similar organizations, the organization’s consistency over time and its unity or solidarity (the FoOI). Thirdly, the findings confirm and further specify the *Sense of Organization Identity* (SoOI) construct (cf. Van Tonder, 2006) and do so through articulating a pertinent structure and coherence for the SoOI construct – embodied in the measurement model extracted (Figure 1). This model defines the relationship between composite or formative elements of the SoOI (the latent variable) but also the manifestation of the latter in terms of identity certainty (strength) and clarity. The further specification of the SoOI in terms of a context-free measurement model now means that the barrier (and threshold) associated with the complexity and ambiguity of the organization identity concept that historically prevented its reification in applied settings, is no longer of

concern. Acknowledging that previous OIT studies consistently observed complex causal relationships between the SoOI and organizational performance (Carstens, 2008; Sugreen, 2012; Van Tonder, 1999), the further specification of the SoOI now paves the way for a multitude of new research avenues apart from reinvestigating established models of organizational behaviour and dynamics, with the prospect of enhanced explanatory power.

Applied contribution: Implications for Management

With organizations evolving towards more virtual and notably transparent forms, competitive differentiation with its promise of improved returns on service or product delivery will emerge as a critical survival, sustainability and longevity challenge for organizations, *that is*, for mid-21st century organizations. In 1997 the average life expectancy of organizations was estimated to be around 40 years and declining (De Geus, 1997). The 2004 position that employees were likely to ‘outlive’ or out-serve their organizations (Van Tonder, 2004a) has since emerged as a very confronting and disconcerting contemporary reality - given the frequency and pace with which organizational deaths occur³. It is in this regard that the SoOI has applied value... A *strong sense of identity* emerged as one of four essential survival factors for long-living organizations... those that endured in excess of 200 to 300 years (De Geus, 1997). More recently it was also concluded that organizations with a strong and clear identity (manifest in the SoOI) outperformed organizations with a weak and diffuse identity (Van Tonder, 2006). These observations suggest that *organization identity* holds one of the *fundamental* and *inimitable solutions*, firstly for sustainable competitive differentiation of the organization and, secondly, for its medium to long-term survival. However, because of its abstract and ambiguous nature, organization identity is an exceptionally difficult concept to operationalize meaningfully. The context-free SoOI measurement model reported here now substantially alters the situation and because of the specification of constituting elements as well as specific manifest indicators of SoOI, the model now offers a substantial and reliable diagnostic capability. The relationship between organizational performance and sustainability and the *Sense of Organizational Identity* (previously established) further signifies that the data derived from the model are profoundly relevant and important – largely because “...it acts as a powerful perceptual filter [...] but also as a below-the-surface force and framework that directs and guides behavior and decision-making” (Van Tonder, 2004a, p. 74). The measurement model of SoOI consequently becomes a significant barometer of this *intangible asset* and indicates avenues for managerial attention and channelling energy if, for example, the SoOI is uncertain / weak and diffuse. If, on the other hand, the SoOI is certain / strong and clear, it signals a substantially crystallised identity which, at a tacit level, will significantly aid competitive differentiation - a critical survival and sustainability challenge for late 21st century organizations. With a strong and clear organization identity being a critical intangible asset at the core of competitive differentiation, the notion of identity-centric management (*cf.* Van Tonder 2011) becomes a necessity. Because of the stability and coherence of a strong and clear identity, this, accompanied by an appropriate and central focus on identity (identity-centric management), may prove decisive in sustaining an enduring competitive presence; buffering the organization against external environmental jolts and internal upheaval; and attracting and ‘locking-in’ a talented workforce that identifies with the organization (including otherwise capricious *new generation* employees).

CONCLUDING PERSPECTIVES

Global dynamics are reshaping the organizational landscape and redefining the nature of ‘competitiveness’, ‘performance’ and ‘success’, and the means of accomplishing this. An unavoidable consequence of this is the emergence of increasingly boundary-less and virtual organizational settings in which traditional notions of (organizational) boundaries and symbols of organizational coherence are eroding and disappearing rapidly. At a psychological level the organization as target of employee identification is becoming more obscure and the workplace an increasingly fragmented and disjointed ‘experience’. In these circumstances an appropriate, strong and clear organization identity becomes a crucial organizational consideration, not least because it facilitates (crucially) needed differentiation in a highly congested and contested competitive setting, but because it powerfully directs focus and consequently sustains behavior and performance. More pertinent though, organization identity at a tacit level crystalizes the organization as *target of employee identification*. Here, ‘below the surface’, a strong and clear organization identity simultaneously performs a powerful role as a source of stability, coherence and meaning for employees in an otherwise rapidly evolving, complex and confounding world. (*Organization Identity Theory – cf.* Van Tonder, 2004b; 2011). In specifying the measurement properties of the Sense of Organization Identity (SoOI) our understanding of organization identity has crossed a significant

conceptual and empirical barrier. Although substantial research is still required, our understanding systematically inches forward.

REFERENCES

- Albert, S., & Whetten, D.A. (1985). Organizational Identity. In Cummings, L.L. & Staw, B.M. (Eds), *Research in Organizational Behavior*, Vol. 7, JAI Press, Greenwich, CT.
- Ashforth, B.E., & Mael, F. (1996). Organizational identity and strategy as a context for the individual. In Baum, J.A.C. and Dutton, J.E. (Eds), *Advances in Strategic Management*, Vol. 13, JAI Press, Greenwich, CT, 19-64.
- Ashforth, B.E., Rogers, K.M., & Corley, K.G. (2011). Identity in organizations: Exploring cross-level dynamics. *Organization Science*, 22(5), 1144-1156.
- Bentler P. M. (2006). *EQS 6 Structural equation program manual*. Encino, CA; Multivariate Software Inc.
- Carstens, N. (2008). *Organization Identity: Past and present*. Unpublished Master's dissertation, University of Johannesburg, Johannesburg.
- Chao, G.T. & Moon, H. (2005). The cultural mosaic: A metatheory for understanding the complexity of culture, *Journal of Applied Psychology*, 90 (6), 1128-1140.
- Corley, K.G., & Gioia, D.A. (2004). Identity ambiguity and change in the wake of a corporate spin-off. *Administrative Science Quarterly*, 49, 173-208.
- Corley, K.G., Harquail, C.V., Pratt, M.G., Glynn, M.A., Fiol, C.M., & Hatch, M.J. (2006). Guiding organizational identity through aged adolescence. *Journal of Management Inquiry*, 15(2), 85-99.
- De Geus, A. (1997). *The living company: Growth, learning and longevity in business*. London: Nicholas Brearley Publishing.
- Dhalla, R. (2007). The construction of organizational identity: Key contributing external and intra-organizational factors. *Corporate Reputation Review*, 10(4), 245-60.
- Dutton, J.E., & Dukerich, J.M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *The Academy of Management Journal*, 34(3), 517 - 554.
- Erikson, E.H. (1959). Identity and the life cycle. *Psychological Issues*, 1(1), 18-164.
- Erikson, E.H. (1968). *Identity, youth and crisis*. Norton, New York, NY.
- Haslam, S.A. (2001). *Psychology in organizations: The social identity approach*. Sage, London.
- Haslam, S.A., & Reicher, S. (2007). Identity entrepreneurship and the consequences of identity failure: The dynamics of leadership in the BBC prison study. *Social Psychology Quarterly*, 70(2), 125-47.
- Haslam, S.A., Van Knippenberg, D., Platow, M., & Ellemers, N. (Eds). (2003). *Social identity at work: Developing theory for organizational practice*. Psychology Press, New York, NY.
- Hox, J.J. & Maas, C. (2001). The accuracy of Multilevel Structural Equation modeling with pseudobalanced groups and small samples. *Structural Equation Modeling*. 8. 157-174.
- Koser, K. & Laczko, F. (2010). World Migration Report 2010: The future of migration: Building capacities for change, IOM International Organization for Migration, France: Imprimerie Courand et Associés.

Sugreen, G. (2012). *The relationship between organisation identity and organisation performance*. Unpublished doctoral thesis, University of Johannesburg, Johannesburg.

Van Tonder, C.L. (2011). "Discerning the unique in the universal: The notion of organisation identity. *European Business Review*, 23(6), 632-54.

Van Tonder, C.L. (2009). Type change: The perceived structure of organizational change events. In N. Delener, L. Fuxman, F. Victor Lu, A. Putnova & L.E. Rivera-Solis (Eds.), *Readings book: Eleventh International Conference of the Global Business and Technology Association (GBATA)*, 1161-1170.

Van Tonder, C.L. (2006). Exploring the identity and sense-of-identity of organisations. *SA Journal of Industrial Psychology*, 32(3), 12-25.

Van Tonder, C.L. (2004a). Below the surface and powerful: The emerging notion of organization identity. *Organization Development Journal* (Special issue), Summer, 22(2), 68-78.

Van Tonder, C.L. (2004b). At the confluence of Organisation Development (OD) and Organisation Identity (OIT): Enter identity interventions. *SA Journal of Industrial Psychology*, 30(1), 91-98.

Van Tonder, C.L. (1999). *Organisation Identity: an exploratory study*. Unpublished doctoral thesis, Rand Afrikaans University, Johannesburg.

Whetten, D.A. (2007). A critique of organizational identity scholarship: Challenging the uncritical use of social identity theory when social identities are also social actors. In C.A. Bartel, S.L. Blader and A. Wrzesniewski (Eds.). *Identity and the modern organization*. Lawrence Erlbaum Associates, Mahwah, NJ.

ENDNOTES

1 "The liability of change" was introduced by Van Tonder (2009, p. 1161) in reference to the threat that major organizational change poses to organizational growth and sustainability – as evidenced in the 65% to 75% failure rates reported for major change initiatives.

2 Multilevel Structural Equation Modeling (ML SEM) was performed using EQS 6.2 for Windows, to control for sample dependence in the data set not (not to test the model at two levels). The sample size at cluster / group level did not meet Hox and Maas' (2001) recommended minimum size of 100 for unbiased model parameter estimation in ML SEM analysis. As a consequence all manifest variables were allowed to covary freely at the organization-level with no latent variable involvement. ML SEM, furthermore was conducted with a multilevel, robust maximum likelihood estimation method (EQS) while model parameter estimates were tested with *Yuan-Bentler's robust standard error estimator* which is said to be robust against the departure of the multivariate normality assumption (Bentler 2006). A model re-specification strategy was adopted which entailed the identification of problematic variables in each model testing and retesting, but without ruling out the problematic variable in the preceding test of the model.

3 According to Van Tonder (1999, pp. 87-88) organizational death represents the final stage in the organization's life cycle and existence, and come about through bankruptcies, absorption of the organization through mergers and acquisitions, simply ceasing to exist as a legal entity, when the formal participants agree to it being obsolete / defunct and other character-altering change.

MANAGING THE WORK-LIFE BALANCE OF WORKING MOTHERS

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ABSTRACT

Changes in the corporate landscape and an increase in female participation rates in corporate workforces necessitate a better understanding of female career paths and how organisations can accommodate them better. The purpose of this study is to identify the most appropriate work-life balance benefits organisations can offer to female employees to assist them in achieving greater work-life balance. The study further aims to identify learning and development opportunities that females who have exited from their professions can follow to remain relevant and up to date in their fields. The relevant population for this study was all female professionals who endeavored to balance family responsibilities and work demands. The results indicate that the most appropriate work-life balance benefits are flexible working hours, on-site childcare facilities, parental leave, part-time work, mobile working and virtual or cyber working.

LITERATURE REVIEW

“The employment landscape is undergoing rapid changes and factors such as globalisation, technological advances, demographic shifts and the emergence of new occupations have vital implications for career management” (Wickramasinghe & Jayaweera, 2011:914). The most significant source of competitive advantage in the modern knowledge economy is human talent (Bartlett & Ghoshal, 2002:34). Because of this unique source of competitive advantage, attracting and retaining human talent becomes a pivotal strategic concern for organisations (Cabrera, 2008:187).

The past three decades have witnessed unmatched changes taking place in the composition of workforces globally with women’s participation in the labour force rising steadily (Tlaiss & Kauser, 2011:8). The International Labour Organisation reported that “more women work today than ever before” (Cross & Linehan, 2009:246). Female participation rates in the global workforce have grown substantially (Grady & McCarthy, 2008:599) from 43 percent in 1970 to 59 percent in 2004 (Cabrera, 2008:187) and nearly 60 percent in 2010 (Mather, 2007:1).

The benefits of having women in senior management positions have been well documented. Clarke (2011:498) indicates the reasons for increasing female participation rates in senior management levels as that organisations will gain the opportunity to select successors from a wider talent pool, thus securing the best people to fill senior management positions; females in leadership positions could act as role models for younger women in the workplace and also make organisations more attractive to potential female employees. Organisations that have a strong female representation at top management and board levels have a better organisational performance record than organisations without female representation at the top (Brady, Isaacs, Reeves, Burroway & Reynolds, 2011:85). Finally, female managers also bring a unique ‘gender edge’ that can lead to an increase in sales as they give different perspectives and investor confidence (Constant, 2006:465).

Ironically, as the competition for talent increases, organisations continue to fail in their efforts to retain female talent (Cabrera, 2008:187). Women and men enter the workforce at a similar rate, but as they ascend the corporate ladder their representation becomes increasingly unequal. Women are awarded more than half of all graduate degrees, but the majority of CEOs of Fortune 500 companies remain men (Hewlett & Luce, 2006:51).

In 2008 and 2009, women held 15.2 percent of board seats at Fortune 500 companies (Soares, Carter & Combopia, 2009). This number is slowly increasing with the number of women who held board seats at Fortune 500 companies increasing to 16.1 percent in 2011 (Soares, Cobb, Lebow, Winsten, Wojnas & Regis, 2011).

A number of studies have explored the 'female brain drain' phenomenon. According to Mainiero and Sullivan (2005:106), female professionals face three different career issues at the various stages of their careers. In their early careers, challenge or the need to do stimulating work, learn and grow, tends to dominate their career expectations. During the mid-career stage, family responsibilities are often at the forefront and force women to seek balance between work and family life. Finally, authenticity or the need to be true to oneself predominate female professionals' decisions during their late career stage.

Therefore, during women's mid-career stage, when work demands and family needs are incompatible, women often opt out of their professional careers or seek for positions which allow them flexibility in terms of working place and working hours to spend more time with their young children and the feasibility of entry and exit as family demands allow (Tlaiss & Kauser, 2011:12).

Organisations should be cautious not to lose their valuable female talent and strive to prevent the female brain drain of women in their mid-career phase who 'off-ramp' out of their professional careers to create more balanced alternative careers (Cabrera, 2008:187). According to Ten Brummelhuis and Van der Lippe (2010:174) and Sullivan and Mainiero (2007:57), organisations which notice the importance of assisting female employees in gaining greater work-life balance are introducing work-life balance benefits or alternative work arrangement options designed to give female workers more flexibility in scheduling their work time in a way that best suits their situations.

Female professionals with young children might consider utilising work-life balance arrangements as a solution to balance career and family responsibilities. This form of employment gives women the opportunity to contribute to the organisation and to remain relevant in their fields, while working where and at times that is convenient to them (Adams, 1995:21).

RESEARCH PROBLEM

Female professionals find it difficult to balance family responsibilities and career demands, especially when their children are still young and dependent and often decide to "off-ramp" out of full-time employment to tend to their children. Technological advances and an ever increasing body of professional knowledge results in women lagging behind when re-entering or on-ramping back into their professional careers (Regus Survey, 2011:1). This often leaves female professionals despondent about their future career prospects and frequently leads the female professionals rather opting-out of their professional careers, leaving organisations drained of their female talent.

Organisations cannot afford to lose their valuable female talent. It will be detrimental to their performance and public image, the large amounts of time, money and resources invested in their training and development will be lost, and the pool of skilled and talented female employees from which future leaders should be developed, will shrink, leaving the organisation deprived of female role models and mentors.

The objectives of this study are to:

- Identify appropriate work-life balance arrangements that organisations can offer to employees who strive to balance family responsibilities and career demands more successfully, which would prevent them from opting-out.
- Identify pro-active actions that female professionals can follow during a period of being off-ramped to enhance their re-entering ability.

RESEARCH METHODOLOGY

To achieve the best results for this research, a non-experimental research approach was adopted, wherein participants were asked to complete an online questionnaire. Questions were primarily close ended questions

where the most applicable answer could be selected from a list of possible options. Open-ended questions and questions where the participants had to specify or explain an answer were labelled and categorised.

The relevant population for this study was all female professionals who endeavoured to balance family responsibilities and work demands. They should ideally have young dependent children. Employment status could be any of the following: Working full-time, working part-time, working informally or not working.

Snowball and convenience sampling methods were used to reach members of the desired population to include in the research project. A sample of, n=191 female professionals from the described population participated in this research project.

Descriptive analysis and inferential statistics were used to draw conclusions. Non-parametric statistical techniques were used to compare differences between groups. The p-value of statistical significance, chi-square test, kappa measure of agreement and marginal homogeneity test were used to determine the statistical significance between the responses of groups or between the responses of the same group prior and subsequent to having children.

Content analysis was used to analyse responses to open-ended questions. The responses to open-ended questions were grouped into pre-prepared list of possible categories.

PRESENTATION OF RESULTS

The demographic information is summarised in Table 1 and indicates that the majority of the respondents who participated in this study were white, married females between the ages of 31-40 years, living in a dual-income household. Respondents' qualifications ranged from grade twelve to doctoral degrees, with most of the respondents having honours degrees, degrees and diplomas. Most of the respondents in all three groups are currently working full-time. However a large number of respondents with postgraduate qualifications work part-time, informal or are self-employed.

Table 1: Demographic information

CHARACTERISTICS	PERCENTAGE	CHARACTERISTICS	PERCENTAGE
Age		Race	
21-30 years	21.2%	Black	6.0%
31-40 years	63.6%	Coloured	4.3%
41-50 years	14.1%	Indian/Asian	4.3%
51-60 years	1.1%	White	84.8%
Household structure		Highest qualification	
Married	92.3%	Grade 12	15.8%
Widowed/Divorced	1.6%	Certificate	7.5%
Couple living together	2.7%	Diploma	19%
Single	3.3%	Degree	19.6%
Household income structure		Honours	20.7%
Dual income	84.2%	Masters	15.8%
Single income	15.7%	PhD	1.6%

Most of the respondents who participated in this study have either one or two children, significantly fewer respondents have more than three children. Almost half of the respondents indicated that the concern of balancing family responsibilities and career demands was preventing them from having more children.

The majority of the respondents indicated that the mother carries most of the child-caring responsibilities. Furthermore, most of these mothers are also working full-time.

Table 2 compares employment status of respondents prior and subsequent to having children and further summarises information about respondents' preferred form of employment. The employment status of most of the respondents stayed the same subsequent to having children as it had been prior to their having children. Only about 30 percent of the respondents who were working full-time prior to having children reported their employment status had changed to working part-time, informal, being self-employed or not working subsequent to having children. However, almost half of the respondents indicated that their current form of employment was not their preferred form of employment. Eighty six percent of the respondents, who would prefer a different form of employment, indicated that they would rather work part-time, informal or be self-employed.

Table 2: Information about respondents' careers

CHARACTERISTICS	PERCENTAGE	CHARACTERISTICS	PERCENTAGE
Employment status prior to having children		Employment status subsequent to having children	
Full-time	90.4%	Full-time	64.2%
Temporary/self/informal	9.6%	Temporary/self/informal	31.5%
Not working	0.0%	Not working	4.3%
Is this your preferred employment status		What would you prefer your employment status to be?	
Yes	55.0%	Full-time	6.9%
No	45.0%	Temporary/self/informal	86.1%
		Not working	6.9%

Thirty two percent of the respondents had previous career breaks. Only ten percent of the respondents indicated that they consciously took actions to equip themselves to remain relevant to successfully return to their field. The actions that they undertook included to continue with further studies in their field, attending Continuous Professional Development courses and doing ad hoc/consulting work. They were able to return to their professions successfully.

Table 3 indicates that the work-life balance benefits that were mostly available were flexible working hours. Respondents indicated that they would be interested in utilising flexible working hours, on-site childcare facilities, parental leave, mobile working, childcare allowance, part-time work and virtual work.

Table 3: Information about work-life balance benefits

CHARACTERISTICS	PERCENTAGE	CHARACTERISTICS	PERCENTAGE
Availability of work-life balance benefits	* Respondents could mark multiple responses	Which benefits respondents would consider utilising	* Respondents could mark multiple responses
Flexible working hours	50%	Flexible working hours	75.0%
Part-time work	14.1%	On-site childcare facilities	55.7%
Mobile working	12.8%	Parental leave	48.7%
Parental leave	21.8%	Mobile working	45.5%
		Childcare allowance	42.3%

The majority of the respondents who exited from their professions had initially returned to their professions, but found it too difficult to balance career demands and family responsibilities and decided to rather exit from their professions. Most had been out of their professions for less than three years, but indicated that they would like to be able to return to their professions in the future. Those working part-time, informal or being self-employed generally indicated that they would be adequately or at least somewhat adequately equipped to return to full-time employment.

SUMMARY AND CONCLUSION

The employment landscape is rapidly changing and is calling for a transformation in how one of organisations' most competitive advantages, its human resources, particularly their female employees, is managed. Female employees contribute unique perspectives that are crucial in the modern business world. However, female employees often find it difficult to balance career demands and family responsibilities and frequently off-ramp from their professional or corporate careers for the period when their children are still young and dependent to follow an alternative career over which they have more control and that allows them to have a more balanced life. Organisations should be concerned about the drain of female talent and the loss of investment they had made in the development of female employees.

An objective of the research was to identify the most appropriate work-life balance benefits or arrangements organisations can offer to employees who strive to balance family responsibilities and career demands

The six most appropriate work-life balance benefits were:

- flexible working hours
- on-site childcare facilities
- parental leave
- part-time work
- mobile working
- virtual / cyber working.

An additional objective was to identify pro-active actions that female professionals can follow during a period of being off-ramped to enhance their re-entering ability. Most of the respondents who had off-ramped from their professions indicated that they would like to return to full-time employment in their professions in the future. Respondents whose current form of employment was part-time, informal or self-employed indicated that they would be somewhat or completely successful at returning to their profession.

Respondents indicated that the following actions would also assist them to remain relevant in their professions and assist them to return to full-time employment:

- Continuous professional development courses and workshops
- Reading and further studies
- Keeping in touch with colleagues and updated with new developments at the office and the organisation
- Attending seminars
- Doing ad hoc, private, part-time or consulting work.

RECOMMENDATIONS

Organisations should primarily be concerned about retaining their valuable female talent. One of the most important steps organisations can take to accomplish this is by assisting female employees with young dependent children to achieve more balance between their work demands and family responsibilities. Organisations can do this by implementing appropriate work-life balance arrangements for female employees to utilise.

It is important to note that work-life balance arrangements should not only be available theoretically, and often, once a request has been made to utilise some of the arrangements, it is denied. A further important aspect to consider in terms of work-life balance arrangements is the negative connotations often associated with utilising them. Employees who consider utilising work-life balance arrangements often feel that they will be

discriminated against for utilising such arrangements and rather decide against utilising it. Other employees at organisations who do not utilise work-life balance arrangements, often carry resentment towards those employees who make use of work-life balance arrangements. Therefore, a sound performance measuring system becomes vitally important to measure performance outcome and not subjective measures of performance based on how much face-time employees spend at the office.

Female employees who opt-out of full-time employment for the period when their children are still young and dependent, but who have intentions of returning to their professions, cannot rest on their laurels because technological advances will leave them lagging behind and often unable to find suitable positions in their professions. These women should consciously engage in pro-active actions such as attending continuous professional development courses, workshops, engaging in further studies, reading literature applicable to their professions, attending seminars or doing ad hoc, private, part-time or consulting work to keep them relevant in their field and assist them to return to suitable positions in their professions.

Some female employees would want to off-ramp from their professions and organisations could make their internal learning and development opportunities available to these women, at their own cost, to keep them abreast of developments in their industries and relevant and equipped to return to their professions.

LIMITATIONS OF THE STUDY

As with most research projects, it is acknowledged that this research study had several limitations. The first limitation is that this project was a requirement for the partial fulfilment of a Master's degree in Business Management, therefore the scope of the research had to be extremely narrow and the timeframe allowed for the completions of this study was also particularly rigid.

It is also acknowledged that it is not only female professionals who find it difficult to balance family responsibilities and career demands, but for the purpose of this research project and the particular scope that had to be adhered to, only female professionals were included in this research project.

It is further acknowledged that this study focus on the work-life balance concern from a female perspective and not from an organisational perspective as well.

SUGGESTIONS FOR FURTHER RESEARCH

The scope for further research on this topic is vast. It is suggested that further research should include both men and women in the studies, and also look at the work-life balance concern from an organisational perspective.

In South Africa particularly, cultural influences and the different gender roles assigned to men and women should also be investigated to understand the work-life balance concern in more detail.

Possible future research projects could also include female professionals in executive positions to gain some insight from them as to what actions they took to balance their family responsibilities and career demands successfully, or what sacrifices they had to make to reach high managerial positions.

REFERENCES

- Adams, S.M. (1995). Part-time work: Models that work. *Women in Management Review*, 10(7):21-31.
- Bartlett, C.A. & Ghoshal, S. (2002). Building competitive advantage through people. *MIT Sloan Management Review*, 43(2):34-41.
- Brady, D., Isaacs, K., Reeves, M., Burroway, R. & Reynolds, M. (2011). Sector, size, stability and scandal: Explaining the presence of female executives in Fortune 500 firms. *Gender in Management: An International Journal*, 26(1):84-104.

- Cabrera, E.F. (2008). Protean organizations. Reshaping work and careers to retain female talent. *Career Development International*, 14(2):186-201.
- Clarke, M. (2011). Advancing women's careers through leadership development programs. *Employee Relations*, 33(5):498-515.
- Constant, A. (2006). Female Proclivity to the World of Business. *KYKLOS*, 59(4):465-480.
- Cross, C. & Linehan, M. (2009). Organisational barriers and the female managerial career: Some empirical evidence from Ireland. *J. Workplace Rights*, 13(3):245-258.
- Grady, G. & McCarthy, A.M. (2008). Work-life integration: experiences of mid-career professional working mothers. *Journal of Managerial Psychology*, 23(5):599-622.
- Hewlett, S.A. & Luce, C.B. (2006). Extreme jobs: the dangerous allure of the 70-hour workweek. *Harvard Business Review*, December 2006: 49-59.
- Mainiero, L.A. & Sullivan, S.E. (2005). Kaleidoscope careers: an alternative explanation for the 'opt-out' revolution. *Academy of Management Executive*, 19(1):106-203.
- Mather, M. (2007). Closing the male-female labor force gap. Available from: www.prb.org/Articles/2007/ClosingtheMaleFemaleLaborforceGap.aspx (Accessed 26 December 2011).
- Regus Survey (2011). Opportunities slump for working mums as recession awakens old prejudices. Available from: <http://www.regus.presscentre.com/Press-Releases/Opportunities-slump-for-working-mums-as-recession-awakens-old-prejudices-1681.aspx> (Accessed 18 August 2012).
- Soares, R., Carter, N.M. & Combopia, J. (2009). 2009 Catalyst Census: Fortune 500 Women Board Directors. Catalyst (2009), New York, NY.
- Soares, R., Cobb, B., Lebow, E., Winsten, H., Wojnas, V. & Regis, A. (2011). 2011 Catalyst Census: Fortune 500 Women Board Directors. Catalyst (2011), New York, NY.
- Sullivan, S.E. & Mainiero, L.A. (2007). Kaleidoscope Careers: Benchmarking ideas for fostering family friendly workplaces. *Organisational Dynamics*, 36(1):45-62.
- Ten Brummelhuis, L.L. & Van der Lippe, T. (2010). Effective Work-Life Balance Support for Various Household Structures. *Human Resource Management*, 49(2):173-193.
- Tlaiss, H. & Kauser, S. (2011). The impact of gender, family and work on the career advancement of Lebanese women managers. *Gender in Management: An International Journal*, 26(1):8-36.
- Wickramasinghe, V. & Jayaweera, M. (2011). Career management strategies among IT professionals in offshore outsourced IT firms in Sri Lanka. *Journal of Management Development*. 30(9):914-926.

THE ASSIGNMENT PROBLEM: SEARCHING FOR AN OPTIMAL AND EFFICIENT SOLUTION

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ABSTRACT

The 2-dimensional assignment problem, which consists of assigning n objects to n (or m) opportunities in an optimal way, has long been viewed as a special case of the Linear Programming problem. But solving the Assignment problem as a Linear Programming problem is to use, perhaps, the most inefficient method possible. Many other methods are available for solving the 2-dimensional assignment problem more efficiently. This paper briefly discusses several of these methods and then ranks them according to their efficiency, where efficiency is measured by the number of operations needed by each method to complete the assignment.

INTRODUCTION

The 2-dimensional algorithms discussed in this paper can be used to solve the assignment problem on their own, or they can be viewed as the last step of a more general "K-dimensional assignment problem" methodology in which the information of K sets of data is used to solve the assignment problem instead of the usual one (1) set of data. For example, the solution to the data association problem of Multitarget Tracking can be obtained by:

1. Processing the information of one data set (i.e. 1 scan) which, even though is real-time, often leads to incorrect assignments of reported information and established airplane tracks (2-dimensional problem), and:
2. Processing the information of K data sets (i.e. K scans, where $K \geq 1$) which achieves much higher percentages of correct assignments in real time (K-dimensional problem).

The dimensionality of the K-dimensional problem is determined by the number of data sets (K) used. This problem is solved recursively, by reducing the K-dimensional problem to a (K-1)-dimensional problem, by incorporating one set of constraints into the Objective Function, using a set of Lagrangian Multipliers. Then, given a solution of the K-1 dimensional problem, a Feasible Solution of the K-dimensional problem is reconstructed. The K-1 dimensional problem is solved in a similar manner, and the process is repeated until it reaches the 2-dimensional problem which can be solved optimally, or nearly optimally, using one of the several 2-dimensional algorithms discussed in this paper.

The reason there are so many 2-dimensional algorithms is the fact that these algorithms have different degrees of accuracy and computational complexity and, as a consequence, their potential applications should be carefully examined.

DISCUSSION

Two-Dimensional (Single Scan) Data Assignment Algorithms

The 2-dimensional assignment problem occurs when n facilities are assigned to m objects (jobs) on a one-to-one basis. When $n=m$, the assignment problem is called SYMMETRIC, while when $n \neq m$ the assignment problem is

called ASYMMETRIC. The assignment is made with the objective of minimizing the overall cost of completing the jobs, or, alternatively, of maximizing the overall profit from the jobs.

A typical illustration, even though very small, of an assignment problem is given by the example below. This problem can be solved by each of the six (6) 2-dimensional algorithms discussed in this paper, but only the solution using the COMPLETE ENUMERATION method is explicitly given. The solution, using the other methods can be obtained by using the attached flow charts for each method. The starting point for each of these 2-dimensional assignment algorithms is a COST MATRIX, a specific example of which is given by the cost matrix shown below.

EXAMPLE: A firm has 3 jobs that need to be assigned to 3 work crews. Because of varying experience of the work crews, each work crew is not able to complete each job with the same effectiveness.

The cost of each work crew to do each job is given by the cost matrix shown below in Table 1:

CREW (i)	JOB (j)		
	1	2	3
1	41	72	39
2	22	29	49
3	27	39	60

TABLE 1 – Cost Matrix

The objective is to assign the jobs to the work crews so as to minimize the total cost of completing all jobs.

The six (6) 2-dimensional algorithms discussed in this paper are:

1. The COMPLETE ENUMERATION method
 2. The SIMPLEX LINEAR PROGRAMMING method
 3. The ASSIGNMENT method
 4. The HUNGARIAN method
 5. The MUNKRES method
 6. The DEEPEST HOLE method
1. The most direct way of solving a 2-dimensional assignment problem would be a “complete enumeration” of all possible assignments of facilities to objects, the calculation of cost of each assignment, and the identification of the OPTIMUM assignment, which is the assignment with the MINIMUM cost.

The number N of possible assignments of n facilities to m objects (jobs) on a one-to-one basis is equal to:

$$N = \frac{n!}{(n-m)!}, \text{ if } n > m \quad (1)$$

and $N = n!$ if $n = m$ (2)

Therefore when $n = m = 3$, this number is equal to $3! = 6$; when $n = m = 5$, this number is equal to $5! = 120$, while when $n = m = 10$, the number of possible assignments is equal to $10! = 3,628,000$. The Flow Chart for this method, showing the specific steps needed to apply this method and the results of the solution of this example by this method, is shown in Figure 1, of Appendix I.

Quite obviously, enumerating all possible assignments is feasible only for very small problems and, therefore, it is necessary to investigate alternative solution techniques.

2. Since the assignment problem can be considered a special case of the Linear Programming problem, it can be solved as a Linear Programming problem using the SIMPLEX Algorithm. If c_{ij} is defined as the cost of assigning facility i to job j and x_{ij} is defined as the proportion of time that facility i is assigned to job j, the linear programming problem is:

$$\text{Minimize: } z = \sum_{i=1}^n \sum_{j=1}^n c_{ij} x_{ij} \quad (3)$$

$$\text{Subject to: } \sum_{i=1}^n x_{ij} = 1 \quad \text{for } j = 1, 2, \dots, n \quad (4)$$

$$\sum_{j=1}^n x_{ij} = 1 \quad \text{for } i = 1, 2, \dots, n \quad (5)$$

$$x_{ij} \geq 0 \quad (6)$$

But this approach involves much computational burden. In fact, it took 5 Linear Programming Tableaus to successfully solve the problem stated above which is a rather simple problem. In general, the number of Tableaus needed to solve a Linear Programming problem cannot exceed T_{\max} , where:

$$T_{\max} = \frac{n!}{m!(n-m)!} \quad (7)$$

m = The number of constraining equations in the Linear Programming Problem,

and n = The number of variables in the Linear Programming Formulation of the problem

The Flow Chart for the SIMPLEX method is given in Figure 2, of Appendix I.

It is not clear how this maximum number of Tableaus translates into the “maximum number of operations” needed to solve the assignment problem so that the computational efficiency of this method could be compared to the computational efficiency of other methods, such as the MUNKRES Algorithm, where the computation efficiency is related to the size of the Square Cost matrix.

What is needed for a meaningful comparison is a complete Comparative study in which the “Computational Efficiency” and “Time-to-Solution” of each of these methods can be obtained as a function of the dimensionality (size) of the Cost matrix.

The: ASSIGNMENT, HUNGARIAN, and MUNKRES Algorithms, are related (to some extent) to each other because each of them, starting with the given Cost matrix, attempts to find the OPTIMAL assignment by inducing the “relative costs” of the Facilities / Jobs pairings to zero, through appropriate “manipulation” of the Rows and/or Columns of the given Cost matrix. Their differences are mainly in the way this “manipulation” is carried out, but the ASSIGNMENT and MUNKRES Algorithms can also be used to solve non-symmetric problems while the HUNGARIAN Algorithm cannot.

3. The ASSIGNMENT Algorithm is based on two facts, namely:
 1. Each Facility must be assigned to one of the jobs.
 2. The Relative Cost of assigning Facility i to Job j is not changed by the subtraction of a constant from either a column or a row of the Cost matrix.

It arrives at an OPTIMAL assignment when the Total Relative Cost of the assignment is zero. This method can also be used to solve MAXIMIZATION Assignment problems by first converting the given cost matrix into a “REVERSED MAGNITUDES” Cost matrix, and NON-SYMMETRIC problems. The Flow Chart of the ASSIGNMENT Algorithm is shown in Figure 3, of Appendix I.

4. The HUNGARIAN method (or Kuhn's Algorithm) is related to both, the previously discussed ASSIGNMENT Algorithm, and the MUNKRES Algorithm, which follows. The method consists of four (4) basic steps, and it is an iterative procedure because some of the steps have to be repeated. The method uses a "minimal set of lines" to cover the zeros of the "manipulated" Cost matrix, and the procedure terminates when the required "minimal set of lines" is equal to the dimensionality of the given Cost matrix. The Flow Chart of the HUNGARIAN method is given in Figure 4, of Appendix I.
5. The MUNKRES Algorithm is an OPTIMAL Assignment Algorithm, which can be considered a variant of the HUNGARIAN Algorithm. It differs from it in the detailed procedures for finding:
 1. The "minimal set of lines" which contain all the zeros.
 2. The "maximal set" of independent zeros.

An important feature of this algorithm is the fact that its inventor, in his paper introducing the algorithm, also derived an equation to calculate the "maximum number of operations needed to solve completely any nxn assignment problem." This equation is given by:

$$N_{\max} = (n/6) (11n^2 + 12n + 31) \quad (8)$$

This maximum is of both theoretical and practical interest because it is much smaller (for $n \geq 6$) than the $n!$ operations necessary to solve the assignment problem using the COMPLETE ENUMERATION method. But N_{\max} is larger than the number of operations needed to solve the assignment problem by some of the other methods discussed in this paper (the DEEPEST HOLE Algorithm, for example). There is, however, a problem in such comparisons because of the difficulty encountered in defining a "standard" operation in each of the algorithms. What is needed to obtain an accurate comparison of the Computational Complexity of each of the algorithms discussed in this paper is a complete comparative study in which the "time to obtain the solution to the problem" and the "accuracy of assignment" are evaluated as a function of the same Input Cost matrix, where the "size" of the matrix and the "sparsity" of the matrix are allowed to vary, but the same "size and sparsity" Cost matrix serves as the input to all six (6) 2-dimensional algorithms discussed in this paper. The Flow Chart of the MUNKRES Algorithm is shown in Figure 5, of Appendix I.

6. The DEEPEST HOLE Algorithm, is a "relatively" simple Algorithm and it is computationally more efficient than the OPTIMAL MUNKRES Algorithm. However, there is some loss in performance because it cannot be guaranteed to always select the lowest overall cost assignment. If this "loss in association" can be kept to a minimum, the benefits derived from this algorithm (because of its computational speed and simplicity of implementation) may out-weigh its non-optimality. The Algorithm consists of four (4) simple basic steps, and its iterative because the procedure continues until all pairs have been assigned. The Flow Chart of the DEEPEST HOLE Algorithm is shown in Figure 6, of Appendix I.

Comparing the Two-Dimensional Assignment Algorithms

As already stated in the Introduction section of this paper, the K-dimensional (i.e. K-scan) methodology of data assignment utilizes a 2-dimensional (i.e. single-scan) assignment in its "terminal phase". IF THE OBJECTIVE IS TO DESIGN THE "MOST EFFICIENT" K-dimensional Algorithm, we must select the "best" 2-dimensional algorithm available to support the K-dimensional algorithm. But even if we opted to use a single-scan algorithm to solve the assignment problem, again we need to select the "best" 2-dimensional algorithm available. But, what is meant by "best", and which of the 2-dimensional algorithms is the "best"? To answer the first part of this question it is necessary to first establish our criteria of "goodness". Accuracy (of assignment) and Computational Complexity appear to be two such criteria, but they are not independent. In general, Computational Complexity increases with Accuracy requirements, with "perfect" accuracy (i.e. OPTIMAL solution) resulting in more computational complexity, but the exact relationship between these two criteria is not simple, and it is not easy to obtain.

If Accuracy of assignment is the only criterion used, then both the "COMPLETE ENUMERATION" method and the MUNKRES Algorithm are "equally good" because they both result in the OPTIMAL solution.

However, when Computational Complexity is also considered as a criterion, the MUNKRES Algorithm is “better” because it requires fewer operations to arrive at the optimal solution than the “COMPLETE ENUMERATION” method, for $n \geq 6$. This conclusion is drawn from the fact that, if n is the size of the square Cost matrix, the “COMPLETE ENUMERATION” method requires $n!$ “operations” to arrive at the optimal solution while the maximum number of “operations” required by the MUNKRES Algorithm to arrive at the optimal solution is:

$$N_{\max} = (n/6)(11n^2 + 12n + 31) \tag{9}$$

and

$$n! \geq N_{\max} \quad \text{for: } n \geq 6 \tag{10}$$

However, a potential problem exists even with this apparently flawless logic! What is an “operation”, and are the “operations” of the two (2) algorithms the same? From the six (6) 2-dimensional Assignment Algorithms discussed in this paper, it appears that the DEEPEST HOLE Algorithm is the SIMPLEST (i.e. has the least computational complexity). But, as we have already stated, this Algorithm does not always produce the OPTIMAL solution! How much accuracy are we willing to sacrifice to gain a measure of computational SIMPLICITY?

The other 2-dimensional Assignment Algorithms, appear to fall somewhere between the MUNKRES and the DEEPEST HOLE Algorithms when Computational Complexity is considered as the primary criterion of “goodness”, since the other Algorithms (ASSIGNMENT, HUNGARIAN) are variations of the MUNKRES Algorithm.

How would each of the six (6) 2-dimensional Assignment Algorithms affect the Accuracy and Computational Complexity of the K-dimensional algorithm? We really do not know! Aubrey Poore of CSU (Colorado State University) claims that, for an $n \times n$ square Cost matrix, the Computational Complexity of the K-dimensional algorithm, is less than n^3 . But, unfortunately, he has not evaluated the Computational Complexity of the K-dimensional Algorithm with all of the 2-dimensional Algorithms discussed in this paper, in its “terminal phase”.

The Computational Complexity of some algorithms is shown in Table 2 and summarized below:

1. K-Dimensional “LaGrangian Relaxation” Method $< n^3$
2. 2-Dimensional “Munkres” Method $\sim n^3$
3. 2-Dimensional “Pure Combinatorial” Method $\sim n!$

Table 2			
n	n²	n³	n!
1	1	1	1
2	4	9	2
3	9	27	6
4	16	64	24
5	25	125	120
6	36	216	720
7	49	343	5,040
8	64	512	40,320
9	81	729	362,880
10	100	1,000	3,628,800

Obviously, what is needed to assess the relative merits of each of the six (6) 2-dimensional Assignment Algorithms, and the effect that each one of them has on the Accuracy and Computational Complexity of the K-dimensional algorithm, is a complete comparative study in which these two criteria of “goodness” (i.e. accuracy of assignment, and computational complexity) for each of the six 2-dimensional Algorithms will be evaluated as a function of the DIMENSIONALITY of the Cost matrix (i.e. $n \times n$ or $n \times m$) and the SPARCITY (i.e. the number of zero elements) of the Cost matrix.

CONCLUSIONS AND RECOMMENDATIONS

1. The Assignment Problem, considered a special case of the Linear Programming Problem (LPP) can be either “K-Dimensional” or “2-Dimensional”.
2. There are many “2-Dimensional” methods available, and six of them are discussed in this paper.
3. Since the objective is to select the “Best” Assignment Algorithm, whether it is “K-Dimensional” or “2-Dimensional”, we need to define “Criteria of Goodness” to help us in this evaluation.
4. The criteria of goodness selected are:
 - a. Accuracy of Assignment, and
 - b. Computational Complexity of the method
5. The assignment methods discussed have varying degrees of accuracy and computational complexity.
6. Selecting the “Best” “2-Dimensional” method, which can be used by itself, or as the terminal phase of a “K-Dimensional” algorithm, is not easy, because the “Computational Complexity” of “2-Dimensional Methods” depend on the size (n) of the matrix.
7. What is needed, to assess the relative merits of each “2-Dimensional” method, and the effect each has on the Accuracy and “Computational Complexity” of the “K-Dimensional” algorithm, is a complete comparative study in which the 2 “criteria of goodness” will be evaluated as a function of the “Dimensionality” of the cost matrix (n x n or m x n) and the “Sparsity” of the cost matrix (i.e. the number of zero elements in the cost matrix).
8. At the conclusion of such a complete comparative study, we will be able to identify the “Best” “2-Dimensional” method, and also identify the “Best” “K-Dimensional” algorithm by attaching the “Best” “2-Dimensional” method to the terminal phase of the “K-Dimensional” algorithm.

REFERENCES

- Basirzadeh, Hadi; “Ones Assignment Method for Solving Assignment Problems.”; *Appl. Math. Sci.* (Ruse) 6 (2012); no. 45-48; PP 2345-2355.
- Bertseka, D.P.; “The Auction Algorithm: A Distributed Relaxation Method for the Assignment Problem”; *Annals of Operation Research*; 13; 1988; PP105-123.
- Burgeios, F, and Lassale, J.C.; “An extension of the Munkres Algorithm for the Assignment Problem to Rectangular Matrices”; *Communication of the ACM*; Volume 14; December 1971; PP 802-806.
- Frieze, A.M, and Yadegar, J; “An Algorithm for Solving 3-Dimensional Assignment Problems with Application to Scheduling a Teaching Practice”; *Operations Research Society*; Volume 32; 1981; PP 989-995.
- Hung, Ming S., and Rom, Walter O; “Solving the Assignment Problems by Relaxation”; *Operations Research*; Volume 28; 1980; Number 4; PP 969-982.
- Kuhn, H.W; “Variants of the Hungarian Method for Assignment Problems”; *Naval Research Logistics Quarterly*; Number 2; 1955; PP 83-97.
- Kuhn, H.W; “The Hungarian Method for the Assignment Problem”; *Naval Research Logistics Quarterly*; Number 2; 1955; PP 83-97.

Larsen, Morten; "Branch and Bound Solution of the Multidimensional Assignment Problem Formulation of Data Association."; *Optim. Methods Softw.* 27 (2012); no. 6; PP 1101-1126.

Mazzola, Joseph B., Neebe, Alan W.; "A Generalized Assignment Model for Dynamic Supply Chain Capacity Planning."; *Naval Res. Logist.* 59 (2012); no. 6; PP 470-485.

Munkres, James; "Algorithms for the Assignment Problem and Transportation Problems"; *Journal of the Society for Industrial and Applied Mathematics*; Volume 5; 1957; PP 32-38.

Nyberg, Axel, Wester Iund, Tapio; "A New Exact Discrete Linear Reformulation of the Quadratic Assignment Problem."; *European J. Oper. Res.* 220 (2012); no. 2; PP 314-319.

Pierskalla, William; "The Multidimensional Assignment Problem"; *Operations Research*; Volume 16; Number 2; March-April 1968; PP 8/422-432.

Poore, A.B., Rijavec, N., and Barker, T.N.; "Data Association for Track Initiation and Extension Using Multiscan Windows"; *Signal and Data Processing of Small Targets*; SPIE; Bellingham, WA, Volume 1968; September 1992; pp. 432-441.

Poore, A.B., Rijavec, N., Liggins, M., and Vannicola; "Data Association Problems Posed as Multidimensional Assignment Problems: PROBLEM FORMULATION"; *Signal and Data Processing of Small Targets*; SPIE; Bellingham, WA; Volume 1954; 1993.

Poore, A.B., and Rijavec, N.; "A Lagrangian Relaxation Algorithm for Multidimensional Assignment Problems Arising from Multitarget Tracking"; *SIAM J. Optimization*; Volume 3; August 1993; PP 544-563.

SOCIAL CAPITAL AS A PREDICTOR OF WORK WELLNESS OF ACADEMIC STAFF

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ABSTRACT

Researchers over years have paid a lot of attention to factors that can enhance the work wellness of employees in the workplace. What has not been researched in the South African context is the impact of Social Capital of employee health and work wellness. The main objective of this research was to determine whether social capital is a predictor of the work wellness of academic staff. The results showed that social capital is not a significant predictor of the wellbeing of academics. Recommendations are made.

INTRODUCTION

Economic issues had been at the top of policy agendas of governments around the world over decades. Economic growth, and the search for it, had become the Holy Grail. It was easily assumed, that, what was good for the economy, will necessarily be good for society. The primacy of the needs of the economy has not proved to be easy for health advocates. Social Capital, however, offers some hope within this widespread notion. An opportunity for the public health community to advance their social agendas prolong due to interest that increased in social capital. Within the seizing of this opportunity epidemiological and theoretical thinking require development specifically in the linking between social capital, economic development and health.

Studies, worldwide, have traditionally focused on social capital in either residential or geographical areas and has it been suggested now that social capital at work should also be focussed on (Baum & Ziersch, 2003). Civic engagement and social connectedness can indeed be found inside the workplace, not only outside of it. Social capital research has been taking the analysis into account of the multilevel structure of data comprising individuals in social units (Sundquist & Yang, 2006; Szreter & Woolcock, 2004). While considering these techniques which enable the inclusion of predictors at multiple levels and provide a flexible framework to examine not only group level differences (within and between groups), attributable to either compositional effects or contextual differences, but also interaction between variables of different levels. Several studies, to date, have examined social capital and self-rated health among working age population in a multilevel setting. Many studies have documented an association between better self-rated health and higher social capital at either aggregated level or individual level (Kavanagh, Bentley, Turrell, Broom & Subramanian, 2006; Kavanagh, Turrell & Subramanian, 2006; Kin & Kawachi, 2006; Kim, Subramanian & Kawachi, 2006, Sundquist & Yang, 2006). Against this background the main objective of this research is to determine whether social capital predicts the work wellness (i.e. physical and psychological ill-health) of academics in South African Higher Education Institutions. We propose that the higher the level of social capital the less the levels of physical and psychological ill-health academics will experience. This paper is motivated from the limited research that currently exists on the interactive relationship between the constructs of social capital and work wellness.

LITERATURE REVIEW

Micro-, Meso- and Macro levels of Social capital

There are three spheres in social capital namely micro-level social capital, meso-level social capital and macro-level social capital (Halpern, 2005). Embedded in each level are *networks, norms and sanctions*. Within these networks and norms individual linking, bonding and bridging occur as individuals constantly move or interact between networks. Within each level sanctions are used to maintain social networks and norms.

At the *micro level*, examples of social networks were parents and siblings within family, acquaintances and friends and consisted of links that was very powerful. The norms in such a relationship were love and care, reciprocity and generosity. Sanctions in the micro-level were for example to withdraw affection (Halpern, 2005). At the *meso level*, examples of social networks include the fact that the individuals knew some of their neighbors. Relationships may vary from simple recognition by sight or maybe a greeting exchanged as we pass to deep friendships that involved frequent visits to each other's homes and the exchange of both emotional and material support. Due to rivalry and dislike these relationships were not referred to positively. In the community, that forms part of the network, it may be defied either formally or geographically, for example in rural villages. Its boundaries can therefore be ill defined. Another example is workplace relationship between employees and colleagues and employees and employers. Norms within the meso-level were considered as community customs, out-group understanding and mutual respect. Sanctions in the meso level were for example group conflict and exclusion (Halpern, 2005). At the *macro level*, examples of social networks that were considered were on how a nation or race link within trade. Norms are based on patriotism and trust as well as human rights. Macro considerations of sanctions would be within international law, diplomacy and the development of war (Halpern, 2005).

Social Capital and Health

Health researchers have devoted much attention to social capital during the last two decades. It was determined by these researchers that two schools of thought can be distinguished within the social capital sphere a) individual social capital and collective social capital. On the one hand, social capital concerns elements at the collective level of communities, workplace or neighbourhoods. On the other hand, social capital refers to resources at the individual level. Putnam (2000) specifically defined social capital as "connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them."

Recently a renewed interest in socioeconomic determinants of health has also emerged resulting in numerous studies linking social capital with various aspects of health and well-being. Lomas (1998) highlights "the importance of factors such as social cohesion resulting from high levels of social capital by noting that individuals and their ill-health cannot be understood solely by looking inside their bodies and brains; one must also look at their communities, their networks, their workplaces, their families and even the trajectories of their life." Research has found that people with more social network resources are more likely to have a better self-rated health and mental health (Halpern, 2005; McCulloch, 2001).

Social capital affects health through a variety of pathways. Kawachi, Kennedy and Glass (1999) suggest that individual health can be influenced by social capital in three ways. Firstly, the formal and informal social networks associated with high levels of social capital may help people to access health education and information, address cultural norms which may be detrimental to health (such as smoking) and advance prevention efforts. Secondly, social capital may influence health through collective action to design better health care delivery systems thereby increasing access to services. Thirdly, the support systems associated with social capital may act as a source of self-esteem and mutual respect. Brunner and Marmot (1999) claimed that social isolation and lack of social support may produce high levels of psychological stress. Chronic stress may be associated with conditions such as heart failure, depression, diabetes and high blood pressure. Putnam (2000) further claimed that in all the domains of social capital that have been traced in none is the importance of social connectedness so well established as in the case of health and well-being.

METHOD

A quantitative research approach was followed with questionnaires distributed among a convenience sample of academics in a South African Higher Education Institution. The General Health Questionnaire and a Social Capital Measurement were administered (Onyx & Bullen, 1997; 1998). The General Health Questionnaire

consists of 19 items and measures Physical and Psychological Ill-Health. Responses are measured on a four-point Likert scale ranging from Never (1) to Often (4). The Social Capital consists of 57 items and measures three dimensions: Family Life, Workplace Aspects and Community. Responses are measured on a four-point Likert scale ranging from Never (1) to Often (4). The data analyses were done with the aid of SPSS 20. Linear regression analyses were performed to test for the relationships between Social Capital and work wellness.

RESULTS

The Descriptive Statistics and reliabilities of the measurements are reported in Table 1 below. The results show an acceptable to excellent reliability for the measurements. When looking at the mean scores of the measures it is evident that the respondents experience above average levels of the three dimensions of social capital. The results show that the respondents receive sufficient support from their families to improve their work. The results however also show that the individual's family life is not that well supported by their work. As regards workplace aspects the respondents indicated that they receive sufficient support from their colleagues and supervisor and that there are opportunities for growth and developed in their careers. However, the compensation aspects of their work seem problematic as well as job security. The results further show that the respondents are moderately involved in communities outside their work. The results show that the respondents experience average levels of work wellness and seemed to experience more psychological health-related problems.

Table 1 Descriptive Statistics of the Measurements

	Mean	Std. Deviation	Cronbach Alpha
Family Life	3.1012	.55690	.896
Family Support for Work	2.7817	.74580	.917
Work Support for Family	3.4206	.52478	.804
Workplace	2.9732	.39902	.849
Career Development	3.1361	.52413	.762
Relationships with Colleagues	3.1627	.56368	.805
Relationships with Supervisor	3.4603	.63737	.872
Compensation	2.2500	.78864	.829
Job Security	2.8571	.85901	.893
Community	2.7524	.49792	.867
Work Wellness	1.8426	.49492	.871
Physical Ill-Health	1.9312	.49200	.677
Psychological Ill-Health	1.7540	.61963	.899

Next the results of the regression analyses between social capital and overall work wellness are reported. The results in Table 2 show that none of the social capital dimensions are significant predictors of overall work wellness.

Table 2 Regression Analyses between Social Capital Dimensions and Work Wellness

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Family Life and Work Wellness								
	B	SE	Beta			.126 ^a	.016	-.009
(Constant)	2.190	.439		4.988	.000			
Family Life	-.112	.139	-.126	-.803	.427			
Workplace and Work Wellness Work Wellness								

	B	SE	Beta			.067 ^a	.005	-.020
(Constant)	2.091	.587		3.563	.001			
Workplace	-.084	.196	-.067	-.427	.672			
Community and Work Wellness								
	B	SE	Beta			.047 ^a	.002	-.023
(Constant)	1.970	.439		4.488	.000			
Community	-.046	.157	-.047	-.295	.770			

Next the results of the regression analyses between social capital dimensions and physical ill-health are reported. The results in Table 3 show that none of the social capital dimensions are significant predictors of physical ill-health.

Table 3 Regression Analyses between Social Capital Dimensions and Physical Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Family Life and Physical Ill-Health								
	B	SE	Beta			.070 ^a	.005	-.020
(Constant)	2.124	.439		4.840	.000			
Family Life	-.062	.139	-.070	-.446	.658			
Workplace and Physical Ill-Health								
	B	SE	Beta			.064 ^a	.004	-.021
(Constant)	2.167	.584		3.713	.001			
Workplace	-.079	.195	-.064	-.407	.686			
Community and Physical Ill-Health								
	B	SE	Beta			.024 ^a	.001	-.024
(Constant)	1.996	.437		4.569	.000			
Community	-.023	.156	-.024	-.150	.882			

Next the results of the regression analyses between social capital dimensions and physical ill-health are reported. The results in Table 4 show that none of the social capital dimensions are significant predictors of physical ill-health.

Table 4 Regression Analyses between Social Capital Dimensions and Psychological Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Family Life and Psychological Ill-Health								
	B	SE	Beta			.145 ^a	.021	-.003
(Constant)	2.255	.548		4.114	.000			
Family Life	-.162	.174	-.145	-.929	.358			
Workplace and Psychological Ill-Health								
	B	SE	Beta			.057 ^a	.003	-.022
(Constant)	2.015	.735		2.741	.009			
Workplace	-.088	.245	-.057	-.358	.722			
Community and Psychological Ill-Health								
	B	SE	Beta			.056 ^a	.003	-.022
(Constant)	1.944	.549		3.540	.001			
Community	-.069	.196	-.056	-.352	.727			

Next the results of the regression analyses between family life dimensions and physical ill-health are reported. The results in Table 5 show that none of the family life dimensions are significant predictors of physical ill-health.

Table 5 Regression Analyses between Family Life Dimensions and Physical Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Work Support to Family Life and Physical Ill-Health								
	B	SE	Beta			.235 ^a	.055	.032
(Constant)	2.685	.498		5.386	.000			
Work Support	-.220	.144	-.235	-1.530	.134			
Family Support to Work and Physical Ill-Health								
	B	SE	Beta			.060 ^a	.004	-.021
(Constant)	1.821	.300		6.077	.000			
Family Support	.040	.104	.060	.382	.705			

Next the results of the regression analyses between family life dimensions and psychological ill-health are reported. The results in Table 6 show that none of the family life dimensions are significant predictors of psychological ill-health.

Table 6 Regression Analyses between Family Dimensions and Psychological Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Work Support to Family Life and Psychological Ill-Health								
	B	SE	Beta			.235 ^a	.055	.032
(Constant)	1.846	.378		4.887	.000			
Work Support	-.033	.131	-.040	-.252	.802			
Family Support to Work and Psychological Ill-Health								
	B	SE	Beta			.252 ^a	.063	.040
(Constant)	2.771	.625		4.433	.000			
Family Support	-.297	.181	-.252	-1.646	.108			

Next the results of the regression analyses between Workplace Dimensions and physical ill-health are reported. The results in Table 7 show that none of the workplace dimensions are significant predictors of physical ill-health.

Table 7 Regression Analyses between Workplace Dimensions and Physical Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Career Development and Physical Ill-Health								
	B	SE	Beta			.129 ^a	.017	-.008
(Constant)	1.552	.468		3.318	.002			
Career Development	.121	.147	.129	.821	.416			
Relationship with Colleagues and Physical Ill-Health								
	B	SE	Beta			.071 ^a	.005	-.020
(Constant)	2.127	.442		4.812	.000			
Colleagues	-.062	.138	-.071	-.450	.655			
Relationship with Supervisor and Physical Ill-Health								
	B	SE	Beta			.017 ^a	.000	-.025
(Constant)	1.886	.429		4.394	.000			
Supervisor	.013	.122	.017	.108	.915			
Job Security and Physical Ill-Health								
	B	SE	Beta			.094 ^a	.009	-.016
(Constant)	2.086	.269		7.761	.000			
Job Security	-.054	.090	-.094	-.599	.552			
Compensation and Physical Ill-Health								
	B	SE	Beta			.071 ^a	.005	-.020

(Constant)	2.083	.233		8.922	.000			
Compensation	-.068	.098	-.108	-.689	.495			

Next the results of the regression analyses between Workplace Dimensions and psychological ill-health are reported. The results in Table 8 show that none of the workplace dimensions are significant predictors of psychological ill-health.

Table 8 Regression Analyses between Workplace Dimensions and Psychological Ill-Health

Model	Unstandardised Coefficients		Standardised Coefficients	t	p	R	R ²	ΔR ²
Career Development and Psychological Ill-Health								
	B	SE	Beta			.028 ^a	.001	-.024
(Constant)	1.650	.594		2.778	.008			
Career Development	.033	.187	.028	.178	.860			
Relationship with Colleagues and Psychological Ill-Health								
	B	SE	Beta			.111 ^a	.012	-.012
(Constant)	2.142	.555		3.861	.000			
Colleagues	-.123	.173	-.111	-.710	.482			
Relationship with Supervisor and Psychological Ill-Health								
	B	SE	Beta			.209 ^a	.044	.020
(Constant)	2.459	.529		4.651	.000			
Supervisor	-.204	.150	-.209	-1.355	.183			
Job Security and Psychological Ill-Health								
	B	SE	Beta			.126 ^a	.016	-.009
(Constant)	1.495	.337		4.432	.000			
Job Security	.091	.113	.126	.802	.427			
Compensation and Psychological Ill-Health								
	B	SE	Beta			.050 ^a	.002	-.022
(Constant)	1.842	.295		6.236	.000			
Compensation	-.039	.124	-.050	-.316	.754			

CONCLUSION

The results highlighted the importance of social capital as a means towards increasing the positive work-related states of academics. Higher Educational Management should thus assess the social capital of academics and provide interventions and corrective measures where applicable to ensure healthy work environments where academics can flourish and grow. This research proved the utility of an adapted version of a Social Capital Measure in the South African context. This research also added to the limited body of research that currently exists on Social Capital in the workplace.

REFERENCES

- Baum, F. & Ziersch, A.M. (2003). Social capital. *Journal of Epidemiology and Public Health*, 57, 320-323.
- Brunner, E. & Marmot, M. (1999). Social organization, stress and health. In M. Marmol & R.G. Wilkinson (Eds.) *Social determinants of health* (pp. 17-43). Oxford: Oxford University Press
- General Health Survey.
- Halpern, D. (2005). *Social Capital*. Polity Press, Cambridge, United Kingdom.
- Kavanagh, A.M., Bentley, R., Turrell, G., Broom, D.H. & Subramanian, S.V. (2006). Does gender modify associations between self rated health and the social and economic characteristics of local environments? *Journal of Epidemiology & Community Health*, 60, 490-495.

- Kawachi, I., Kennedy, B.P. & Glass, R. (1999). Social capital and self-rated health: a contextual analysis. *American Journal of Public Health*, 89, 1187-1193.
- Lomas, J. (1998). Social capital and health: implications for public health and epidemiology. *Social Science Medicine*, 47, 1181-1188.
- McCulloch, A. (2001). Social environments and health: a cross-sectional survey. *British Medical Journal*, 323, 208-209.
- Onyx & Bullen (1997). Center for Australian Community Organizations and Management (CACOM). Social Capital Measuring Instrument.
- Onyx & Bullen (1998). Center for Australian Community Organizations and Management (CACOM). Social Capital Measuring Instrument.
- Onyx & Bullen (2000). Center for Australian Community Organizations and Management (CACOM). Social Capital Measuring Instrument.
- Putnam, R.D. (2000). *Bowling alone. The collapse and revival of American community*. Simon & Schuster, London.
- Subramanian, S.V., Kim, D.J. & Kawachi, I. (2002). Social trust and self-rated health in US communities: a multilevel analysis. *Journal of Urban Health*, 79, S21-S34.
- Sundquist, J, Johansson, S.E., Yang, M. & Sundquist, K. (2006). Low linking social capital as a predictor of coronary heart disease in Sweden: a cohort study of 2.8 million people. *Social Science & Medicine* 62, 954 – 963.
- Szreter, S. & Woolcock, M. (2004). Health by association. Social capital, social theory, and the political economy of public health. *International Journal of Epidemiology*, 33, 650-667.

SHOPPERS' PERCEPTIONS OF MALL ATTRIBUTES, SHOPPING SATISFACTION AND MALL COMMITMENT

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ABSTRACT

Over the past decade or two, the South African retail environment has been characterized by the establishment and/or the renovation of shopping centres all over the country. Shopping malls or centres cater beyond the normal, grocery and clothing purchasing, it is more of a lifestyle and entertainment experience. The main purpose of this study is to investigate shoppers' mall perceptions of specific shopping centre attributes. Self-administered questionnaires were distributed via a mall intercept survey and a sample of 200 respondents was realized. The results found several gender and age differences. Furthermore, the findings indicate several positive relationships between the variables investigated. Shopping malls should focus on planning the appropriate retail tenant mix that will provide variety and entertainment but will also contribute to their image and attract more visitors.

INTRODUCTION

Over the past decade or two, the South African retail environment has been characterized by the establishment and/or the renovation of shopping centres all over the country. Not only does this show enormous growth for the retail industry as a whole, but also the aptitude of retailers to serve the evolving needs of shoppers in the 21st century. Shopping centres play a major role in consumers' lifestyle (Terblanche, 1999), as these centres are not only a place for shopping but also a community centre for social and recreational activities (Ng, 2003). Thus, shopping malls or centres are becoming new places that consumers visit where shopping has changed meaning and focus (Burnaz & Topcu, 2011). Shopping centre developers and mall managers are challenged by the competitive market environment and well-informed customers. As customers of retail stores have become more empowered with a vast amount of information and knowledge about product, prices and brands it has become harder to satisfy customers.

These competitive forces and other environmental factors challenge mall managers to differentiate and position their mall in the minds of the customer and they must employ various strategies to make the shopping experience as enjoyable as possible (North & Kotze, 2004). Customer satisfaction has been an important construct in retailing literature because satisfaction is an antecedent of positive outcomes (Gustafson, Johnson & Ross, 2005). Consumer's satisfaction is also important to mall managers, because it has been shown that satisfaction with previous experiences influences future shopping choices (Machleit, Eroglu, & Mantel, 2000:30). Furthermore satisfaction is gaining more attention because of intense competition in the business world and thus leading to the major concern of 'how to keep customers satisfied in order to maintain and grow profitably' (Im & Ha, 2011:2273).

Shopping malls cater beyond the normal, grocery and clothing purchasing, it is more of a lifestyle and entertainment experience. It has been suggested that shopping nowadays is not just a task-oriented activity but also a leisure activity (Cox, Cox & Anderson, 2005). In a shopping mall shoppers are exposed to a collection of

atmospherics such as music and decoration and a wide selection of stores, as well as entertainment options, which forms customers' perceptions (Stoel, Wickliffe & Lee, 2004; El-Adly, 2007). When shoppers visit a mall, they form general opinions about a mall based on their experiences at the mall. Attributes such as the variety of stores and entertainment offered (which forms part of the mall atmosphere) contribute largely to the shoppers' perceptions. A variety of stores at a mall provide shoppers with excitement in their purchasing experiences, offering a change of relief from boredom and increase the desire to stay longer at the mall (Sharma, Sivakumaran & Marshall, 2010:277). With the growing number of shopping centres, shoppers tend to be more selective and they are more likely to patronize malls that are attractive and have a wider variety of stores and merchandise that match their preferences (Wong, Yu & Yuan, 2001). In addition a shopping centre can contribute significantly to leisure by providing shoppers with entertainment offerings. Previous results also suggest that mall frequency visit is related to the number of mall entertainment offerings (Kim, Christiansen, Feinberg & Choi, 2005, 490). According to Barnes (2002:1) shopping centres in South Africa for example are increasingly utilizing the marketing opportunities offered by various kinds of entertainment activities, not only to draw customer to the centre, but also build possible long-term relationships. Im and Ha (2010) found that it is necessary for shopping satisfaction to provide a good selection of stores and fun that exceeds customer expectations. Shoppers' perceptions allow shoppers to be aware of the mall attributes by confirming their opinions about the mall, therefore, determining the shoppers' mall frequency visits. Shopping mall attributes such as variety of stores and entertainment, are some of the important attributes of shoppers' perceptions about shopping malls. These attributes and more, when managed properly, can contribute to the long-term shopping mall success.

The more shoppers visit a shopping mall, the more they tend to be committed to the mall. Commitment is general defined as a pledging or binding of an individual to behaviour acts and Chebat, Hedhli and Sirgy (2009:51) define mall commitment as the resistance to switch to other malls due to the high levels of satisfaction.

A wide range of studies investigating various aspects relating to consumer behaviour in the shopping centre context, and specifically the factors that could influence patrons' preferences to frequent a specific shopping centre, have been executed over the past three or four decades (Budkin & Lord, 1997; Wakefield & Baker, 1998; Wong, *et al.*, 2001; Sit, Merrilees & Birch, 2003; El-Adly, 2007; Allard, Babin & Chebat, 2009). Numerous studies also studied shoppers' evaluations of shopping enjoyment and mall image based on demographic factors such as age, gender and ethnicity (Kim & Kim, 2005; Seock, 2009). However not much is known about shoppers' perceptions, possible age and gender differences, as well as the possible correlations between shopper satisfaction and mall commitment in a South African context.

LITERATURE

Shoppers visit a shopping mall to do more than just shopping for products and services; they also visit the mall for lifestyle and entertainment experiences. Through these experiences the shopper forms perceptions about a shopping mall. Perceptions are influenced by mall attributes such as, perceived human crowding, variety of stores, safety, accessibility, location, decor and entertainment offered at the mall, to name but a few (Wong *et al.*, 2001; Sit *et al.*, 2003; North and Kotzé, 2004). Furthermore, these attributes will determine shoppers' level of satisfaction, mall image and commitment to a shopping mall.

A continuous question that might go through the mall manager's mind is "how to tempt customers to visit all parts of the shopping mall?" A way to address this question is to offer a variety of stores in a mall. Variety seeking is defined as a "means of obtaining stimulation of purchase behaviour by alternating between familiar choice objects such as stores simply for the sake of change" (Sharma *et al.*, 2010:277). Research has shown that a variety of stores within a mall influences mall selection, frequency of shopping and the image of the shopping mall (Wakefield & Baker, 1998:521). Rabbanee, Ramaseshan, Wu and Winden, (2012:271) found that shoppers have the desire to stay longer in a shopping mall that offers a variety of stores, thus increasing the probability of them spending more money. Store variety also provides shoppers with excitement and novelty in their purchasing experiences (Sharma *et al.*, 2010:277). In Im and Ha's (2011:271) study, it has been stated that shoppers drive past malls with less stores to reach their desired malls that have the best variety of stores. A mall that offers a variety of stores attracts more shoppers because of the excitement it creates and in addition, a one-stop shopping mall allows shoppers to conveniently compare offerings (Wakefield & Baker, 1998:521). The results of Teller and Reutterer's (2008:137) study show that retail-related factors, i.e. "tenant mix" and

“merchandise value”, exert the most substantial impact on the overall attractiveness of a shopping centre. They suggest that the marketing activities of shopping centres should focus on its core function: providing a broad and deep mix of stores and goods. This is supported by Wakefield and Baker’s study (1998) which highlighted the importance of merchandising (i.e. good choice of brands, good range of products) and tenant variety as stimuli that induce excitement in a shopping mall setting.

Shopping malls offer the shopper more than just the normal grocery and clothing buying, but also an element of entertainment. The integration of shopping and entertainment brought about the term “shoppertainment”. Entertainment is “something that amuses, pleases or diverts especially a performance or a show”. The entertainment mix of a shopping mall may comprise of a speciality event that is incorporated into the property of the shopping mall for a longer duration, for example movie theatres, gaming and bowling arcades (Sit *et al.*, 2003); special event entertainment (such as fashion shows) and food (such as food courts and cafes). These entertainment offerings motivate shoppers to extend the time spent at the mall. Ooi and Sim (2007) provide evidence that more than 70% of the patrons interviewed feel that the presence of a Cineplex would entice them to visit a shopping centre more often. Hart, Farrell, Stachow, Reed and Cadogan (2007) mention that the variety and quality of entertainment in shopping centres can have a positive influence on the enjoyment of the shopping experience. Entertainment enhances the total shopping mall image thus the shopping mall becomes favourable and unique, giving the shopping mall a sustainable competitive advantage (Kim *et al.*, 2005:490).

The above mentioned mall attributes all engage the sense and are likely to play a significant role in shopper satisfaction and a sense of well-being. If shoppers have a positive shopping experience they are likely to feel positive about the mall and express a deep sense of interest in and commitment to the mall (Hedhli *et al.*, 2011). Akroush and Abu-ElSamen (2011) found that the shopping environment as well as shopping motives positively influence shopper’s satisfaction and further stated that commitment and loyalty were related to shoppers’ satisfaction with the shopping experience. Factors such as the aesthetics of a mall and product variety were found to influence shopper’s satisfaction (Ahmad, 2012). Mahajar and Yunus (2010) also reported significant relationships between, satisfaction, commitment and loyalty of shoppers. Chebat *et al.*, (2009:50) noted that when a shopper has a positive awareness and perception of mall image dimensions/attributes (of which entertainment and store variety are two elements); it may lead to a commitment to the mall.

According to Chebat *et al.*, (2009:54) researchers began to study gender differences in shopping mall behaviour only recently. Several studies demonstrated that women compared to men have a more positive attitude towards shopping (Grewal, Baker, Levy & Voss, 2003). Hu and Jasper (2004) found that men and woman differ in shopping motives, enjoyment with shopping malls and time spent in malls. Research by Lim, Kim & Park (2007) also found that woman evaluates store attributes differently than men. Wesley, LeHew and Woodside (2006) reported that when comparing shopping mall behaviour, females were more recreational conscious, fashion conscious and perfectionist shoppers than males. The results of a survey by (Otnes & McGrath, 2001:116, 119) indicate that the typical male shoppers do not visit a variety of shops to do bargain hunting or engage in browsing activities. Female shoppers, however, view the shopping process as a leisure activity, weigh up the pros and cons of a purchase and visit more shops than men (Hart *et al.*, 2007:592). Generation theorists propose that as the macro-environment changes, there are distinct changes in patterns of consumer behaviour of different age groupings (Strauss & Howe, 1999). Littrell, Ma & Halepete (1995) reported that generational cohorts differ in their approach to shopping. Bakewell and Mitchell (2003:95) propose that younger consumers are likely to develop different shopping styles compared with older generations, for example they found that younger females tend to be more recreational shoppers as well as more easily confused by over-choice than older females.

RESEARCH OBJECTIVES

The main purpose of this study is to determine if there are significant gender and age differences with regards to specific shopping centre attributes, shoppers’ satisfaction and mall commitment as well as to investigate the existence of possible relationships between the selected attributes, shopper satisfaction and mall commitment. This study will focus on the following two attributes: variety of stores and entertainment (Kotzé & North, 2004; Kim *et al.*, 2005; Teller & Reutterer, 2008). To address the objectives the following are hypothesized:

- H₁ There is a significant difference between male and female shoppers' mall commitment.
- H₂ There is a significant difference between male and female shoppers' satisfaction.
- H₃ There is a significant difference between male and female shoppers' perceptions of entertainment.
- H₄ There is a significant difference between male and female shoppers' perceptions of store variety.
- H₅ There is a significant difference between younger and older shoppers' mall commitment.
- H₆ There is a significant difference between younger and older shoppers' satisfaction.
- H₇ There is a significant difference between younger and older shoppers' perceptions of entertainment.
- H₈ There is a significant difference between younger and older shoppers' perceptions of store variety.
- H₉ There is a significant positive relationship between mall attributes and shopper satisfaction.
- H_{9a} There is a significant positive relationship between entertainment and shopper satisfaction.
- H_{9b} There is a significant positive relationship between the variety of stores offered and shopper satisfaction.
- H₁₀ There is a significant positive relationship between mall attributes and mall commitment.
- H_{10a} There is a significant positive relationship between entertainment and mall commitment.
- H_{10b} There is a significant positive relationship between the variety of stores and mall commitment.
- H₁₁ There is a significant positive relationship between satisfaction and mall commitment.

METHODOLOGY

The target population for the study consisted of adult (18+) shoppers at a mall in Gauteng, South Africa. As an accurate sampling frame is not available, a non-probability convenience sampling was used and a sample size of 200 respondents was realized.

Chebat *et al.*, (2009:55) six item commitment scale (Cronbach alpha = 0.93); Im and Ha's (2011:2278-2280) four item, shoppers' satisfaction scale (Cronbach alpha =0.84) and Kim *et al.*, (2005:489) three item entertainment scale (Cronbach alpha = 0.67) was used. Unfortunately, not much could be done to improve on the reliability of the scale by deleting items. However Hair, Anderson, Tatham and Black (1998:118) noted that reliability coefficients above 0.60 are satisfactory for exploratory research. Wakefield and Baker's (1998:523-524) variety of stores, scale was used to measure the variety of stores offered. All the Likert scale points in the questionnaire were labeled ranging from 1 ("Strongly disagree") to 5 ("Strongly agree"). The questionnaire was pre-tested via the participant pre-testing method.

The mall intercept survey targets participants in centralized locations, in this case the shopping mall. Permission to distribute the self-completion questionnaires at the mall was attained. To avoid the potential bias owing to the use of non-probability sampling, the mall intercept survey was conducted at various times and days during the week. There were no incentives involved for the shoppers to participate.

RESULTS

From the 200 respondents 86(43%) were aged between 18-30 years, 57(28%) were aged between 31-40 years, 40(20%) were between 41-50 years and 17(9%) were older than 51 years. The gender ratio for the sample was almost equal numbers of male and female respondents.

The independent sample *t*-test is the appropriate test for H₁-H₄, and ANOVA testing for H₅ -H₈. Assumption testing indicated substantial departures from normality in most of the sub-samples for each for the test variables, and the Mann-Whitney *U* test and Kruskal-Wallis H test were used instead. Since the assumptions of normality for H₉-H₁₁ indicated substantial departures, the Spearman's rank order correlation was used. All hypotheses were tested at a 5% level of significance (i.e., $\alpha = 0.05$). The results of Hypotheses 1-8 are reflected in Table 2 and Table 3.

Table 2: Descriptive statistics and results of the Mann Whitney *U* tests for gender

Hyp.	Gender	<i>N</i>	<i>M</i>	<i>SD</i>	Results: Mann-Whitney <i>U</i> test
H ₁	Male	99	2.73	1.018	Test statistic: 4145 <i>p</i> -value: 0.037; H1(null) accepted
	Female	101	3.04	1.043	

H ₂	Shoppers' satisfaction	Male	99	3.34	0.722	Test statistic: 3933 <i>p</i> -value: 0.008; H1(null) rejected
		Female	101	3.46	0.865	
H ₃	Entertainment	Male	99	3.68	0.786	Test statistic: 4684 <i>p</i> -value: 0.437; H1(null) accepted
		Female	101	3.59	0.797	
H ₄	Variety of stores	Male	99	3.14	1.124	Test statistic: 4500 <i>p</i> -value: 0.216; H1(null) accepted
		Female	101	3.24	0.790	

It is evident from Table 2 that female shoppers are significantly more satisfied with their shopping experience and also more committed to the mall than male shoppers. This might be due to the fact that several other studies found that women compared to men have a more positive attitude towards shopping (Grewal *et al.*, 2003). Lim *et al.*, (2007) reported that woman evaluate store attributes differently than men but this was however not confirmed by the results in Table 2, as the Mann-Withney *U* test did not reveal significant differences in male and female perceptions of the variety of stores or entertainment provided.

Table 3: Descriptive statistics and results of the Kruskal-Wallis H test for age

Hyp.		Age	<i>N</i>	<i>M</i>	<i>SD</i>	Results: Kruskal-Wallis H test
H ₅	Mall commitment	18-30 ^a	86	2.72	1.043	Test statistic: 8.070 <i>p</i> -value: 0.018 Conclusion: Significant difference, H1(null) rejected
		31-40 ^b	57	2.80	1.034	
		41+ ^a	57	3.21	.979	
H ₆	Shoppers' satisfaction	18-30	86	3.42	.800	Test statistic: 0.582 <i>p</i> -value: 0.748 Conclusion No difference, H1(null) accepted
		31-40	57	3.44	.763	
		41+	57	3.50	.855	
H ₇	Entertainment	18-30	86	3.54	.825	Test statistic: 2.612 <i>p</i> -value: 0.271 Conclusion: No difference, H1(null) accepted
		31-40	57	3.66	.773	
		41+	57	3.76	.750	
H ₈	Variety of stores	18-30	86	.328	.965	Test statistic: 2.824 <i>p</i> -value: 0.244 Conclusion: No difference, H(null) accepted
		31-40	57	3.07	.956	
		41+	57	3.34	.996	

The results of the Scheffé *post hoc* tests are indicated with ^a and/or ^b. All mean values containing the same letters (for example, ^a) indicate that the groups differ significantly from one another. All mean values containing different letters (for example, an ^a or ^b) indicate that these groups do not differ significantly from one another.

The only significant difference in Table 3 were found for mall commitment; with the younger age group (18-30 year) being significant less committed to the mall than older (41+) shoppers. This might be due to the fact that older shoppers were more positive, based on mean values, than the other two age groups across all the variables. The findings are thus only partially in-line with the findings of Littrell *et al.*, (1995) that argued that generational cohorts differ in their approach to shopping.

The results of the Spearman's rank order correlations for shoppers' satisfaction and mall attributes showed that: H_{9a}'s *p*-value = 0.000, and therefore the null hypothesis are rejected and the alternative hypothesis (H_{9a}) is accepted. It can, therefore, be concluded that there is a significant positive relationship between the two variables, entertainment provided and shopper's satisfaction. The correlation co-efficient of 0.388 can be described as medium or moderate (Cohen, 1988:79). The coefficient of determination, *r*², indicates that the two variables share 15% common variance. Since there is a moderate, positive relationship between entertainment offered and shoppers' satisfaction, mall management should focus their resources in providing entertainment at the mall to ensure shoppers' satisfaction. H_{9b} *p*-value = 0.000, and the null hypothesis can therefore also be rejected and the alternative hypothesis (H_{9b}) is accepted. The null hypothesis stated that there is no relationship between variety of stores and shoppers' satisfaction. The correlation co-efficient of 0.655, can be described as strong or large (Cohen, 1988:79). The coefficient of determination, *r*², indicates that the two variables share 43% common variance. It can, therefore, be concluded that there is a significant strong, positive relationship between the two variables. The findings above are thus in-line with Ahmad (2012) that reported that mall aesthetics and product variety were found to influence shopper's satisfaction.

For Hypothesis H_{10a}, p=0.000 and thus one can reject the null hypothesis. The correlation co-efficient of 0.273, can be described as small or weak (Cohen, 1988:79) and the coefficient of determination, r², indicates that these two variables only share 7.5 % common variance. Since the p-value (0.000) for Hypothesis 10_b is also smaller than 0.05 one can reject the null hypothesis and accept the alternative hypothesis. The correlation co-efficient of 0.262, can be described as small or weak (Cohen, 1988:79) and the coefficient of determination, r², indicates that these two variables only share 7 % common variance. It can therefore, be conclude that in both instances there are a positive, weak significant relationship between the mall attributes (entertainment and variety of stores) and mall commitment. The results thus supports Chebat *et al.*, (2009:50) findings that when a shopper has a positive perception of the mall image attributes (of which entertainment and store variety are two elements) it may lead to mall commitment. The p-value of H₁₁ (p=0.000) is smaller than 0.05 and therefore the tentative hypothesis accepted. The correlation co-efficient of 0.575, can be described as large or strong (Cohen, 1988:79) while the coefficient of determination, r², indicates that the two variables share 33% common variance. It can, therefore, be concluded that there is a significant positive, strong relationship between shoppers' satisfaction and mall commitment. Thus echoing the results of Hedhli *et al.*, (2011) and Akroush and Abu-ElSamen (2011) that reported that commitment were related to shoppers' satisfaction with the shopping experience.

RECOMMENDATIONS, IMPLICATIONS & LIMITATIONS

The results of the study indicate how shoppers' perceptions of mall attributes are important drivers of shoppers' satisfaction and their commitment to the mall. Shoppers' satisfaction is important to the mall management, because it has been shown that satisfaction with previous experiences influences future shopping choices (Machleit *et al.*, 2000:30). Since variety of stores offered and entertainment has a positive effect on shoppers' satisfaction, management should focus on providing a more stores at the mall as well as keep on providing various entertainment activities. The results again highlight the importance of entertainment and food courts facilities in attracting higher levels of patronage. The positive correlation of variety of stores with shopper's satisfaction and commitment support the notion of Kaufman and Lane (1996) that if a mall delivers a well-positioned mix of outlets it would stand a better chance of success. The results further revealed that entertainment as well as the variety of stores has a weak effect on shoppers' commitment to the mall. Therefore, shoppers' are unlikely to be committed to a mall based solely on the entertainment offerings or store variety of a mall. But since entertainment links with overall shopper satisfaction as well as mall commitment, it is important for shopping mall management to create a pleasing environment for shopping by providing entertainment such as video games, cinemas, special events, window shopping and restaurants. Since commitment to a mall is a strong antecedent to mall loyalty, mall managers need to develop strategies to enhance mall commitment. The results showed that females are more satisfied and committed to the mall and they should be encouraged to spread positive word-of-mouth. As males are less satisfied and committed, mall managers may want to consider specific offerings that would appeal to the male market. This is however a trend across countries as several studies demonstrated that women have a more positive attitude towards shopping compare to men (Grewal *et al.*, 2003). As older shoppers seem more committed, mall management should focus on keeping these committed shoppers by providing additional services and incentive such as mall loyalty cards or free parking to retain them. The results confirm that mall attributes such as store variety and entertainment can induce satisfaction and this suggest that the development and presentation of strong mall attributes relevant to the target market will help to satisfy the customers, but that these two attributes alone may not be enough to ensure mall commitment.

The main limitations related to the study are that a non-probability sampling approach was used and the results of the study cannot be generalized to a larger population on statistical grounds. The study are conducted in a single context and future studies could investigate more variables and include more shopping malls.

REFERENCES

Ahmad, K. (2012). Attractiveness Factors Influencing Shopper's Satisfaction, Loyalty and Word-of-Mount: an Empirical Investigation of Saudi Arabia Shopping Malls. *International Journal of Business Administration*, 3(6), 101-112.

- Akroush, M.N. & Abu-ElSamen, A.A. (2011). The Influence of Mall Shopping Environment and Motives on Shoppers' Response: A Conceptual Model and Empirical Evidence. *International Journal of Services and Operations management*, 10(2), 168-198.
- Allard, T., Babin, B.J. & Chebat, J. (2009). When Income Matters: Customers Evaluation of Shopping Malls' Hedonic and Utilitarian Orientations. *Journal of Retailing & Consumer Services*, 16(1), 40-49.
- Blackwell, C. & Mitchell, V. (2003). Generation Y Female Consumer Decision-Making Styles. *International Journal of Retail & Distribution Management*, 31(2), 95-106.
- Burnaz, S. & Topcu, Y.I. (2011). A Decision Support on Planning Retail Tenant Mix in Shopping Malls. 7th International Strategic Management Conference. *Procdia Social and Behavioural Sciences*, 24, 317-324.
- Chebat, J.C., Hedhli, K.E. & Sirgy, M.J. (2009). How does Shopper-Based Mall Equity Generate Mall Loyalty: a Conceptual Model and Empirical Evidence. *Journal of Retailing & Consumer Services*, 16, 50-60.
- Cohen J.W. (1998). *Statistical Power Analysis for the Behavioural Sciences*. 2nd edition. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cox, A.D., Cox, D. & Anderson, R.D. (2005). Re-Assessing the Pleasure of Store Shopping. *Journal of Business Research*, 5, 250-259.
- El-Adly, M.I. (2007). Shopping Mall Attractiveness: a Segmentation Approach. *International Journal of Retail & Distribution Management*, 35(11), 936-950.
- Gustafsson, A., Johnson, M.D. & Ross, I. (2005). The Effects of Customer Satisfaction, Relationship Commitment Dimensions and Triggers on Customer Retention. *Journal of Marketing*, 69, 210-218.
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. (1998). *Multivariate Data Analysis*. 5th edition. Upper Saddle River, NJ: Prentice-Hall.
- Hart, C., Farrell, A., Stachow, G., Reed, G. & Cadogan, J. (2007). Enjoyment of the Shopping Experience: Impact on Consumers' Repatronage Intentions and Gender Influence. *The Service Industries Journal*, 27, 583.
- Hedhli, E.I., Chebat, J.C. & Sirgy, M.J. (2011). Shopping Well-Being at the Mall: Construct, Antecedents and Consequences. *Journal of Business Research*, 10, 19-26.
- Hu, H. & Jasper, C.R. (2004). Men and Woman: a Comparison of Shopping Mall Behaviour. *Journal of Shopping Centre Research*, 11(1-2), 113-132.
- Im, H. & Ha, S. (2011). An Exploration of the Cognitive-Affective Model of Satisfaction in a Shopping Context: a Test of Competing Models. *The Service Industries Journal*, 31(13), 2273-2288.
- Kaufman, C. & Lane, P. (1996). A New Look at One-Stop Shopping: a TIMES Model Approach to Matching Store Hours and Shopper Schedules. *Journal of Consumer Marketing*, 13(1), 4-25.
- Kim, I., Christiansen, T., Feinberg, R. & Choi, H. (2005). Mall Entertainment and Shopping Behaviours: a Graphical Modelling Approach. *Advances in Consumer Research*, 32, 487-492.
- Lim, C., Kim, Y., Park, S. 2007. Consumer Perceptions toward Retail Attributes of Value Retailers: Functions of Gender and Repatronage Intentions. *Journal of Vacation Marketing*, 10, 320-332.
- Lindquist, J.D. (1974). Meaning of Image: a Survey of Empirical and Hypothetical Evidence. *Journal of Retailing*, 50(4), 29-38.
- Littrell, M., Ma, Y. & Halepete, J. (1995). Generation X, Baby Boomers and Swing: Marketing Fair Trade Apparel. *Journal of Fashion Marketing and Management*, 9, 407-420.

- Machleit, K.A., Eroglu, S.A. & Mantel, S.P. (2000). Perceived Retail Crowding Shopping Satisfaction: What Modifies this Relationship. *Journal of Consumer Psychology*, 9(1), 29-42.
- Mahajar, A.J.B. & Yunus, J.B.M. (2010). The Relationship between Customer Commitment and Satisfaction on the Loyalty Card Program of Department Stores in Malaysia. *Problems and Perspectives in Management*, 8(4), 198-206.
- Nevin, J. & Houston, M. (1980). Image as a Component of Attraction to Intra-urban Shopping Areas. *Journal of Retailing*, 56(1), 77-93.
- Ng, C.F. 2003. Satisfying Shoppers' Psychological Needs: from Public Market to Cyber-Mall. *Journal of Environmental Psychology*, 23(10), 439-455.
- North E.J. & Kotze T. (2004). Customer Perceptions of the Attractiveness of Shopping Centres in Pretoria. *Southern African Business Review*, 8(1), 30-38.
- Ooi, J.T.L. & Sim, L. (2007). The Magnetism of Suburban Shopping Centres: Do Size and Cineplex Matter? *Journal of Property Investment & Finance*, 25(2), 111-135.
- Otnes, C. & McGrath, M. (2001). Perceptions and Realities of Male Shopping Behaviour. *Journal of Retailing*, 77, 112-137.
- Rabbanee, F.K., Ramaseshan, B., Wu, C. & Winden, A. (2012). Effects of Store Loyalty on Shopping Mall Loyalty. *Journal of Retailing & Consumer Services*, 19, 271-278.
- Seock, Y.K. (2009). Influence of Retail Store Environmental Cues on Consumer Patronage Behavior across Different Retail Store Formats: an Empirical Analysis of US Hispanic Consumers. *Journal of Retailing & Consumer Services*, 16(5), 329-339.
- Sharma, P., Sivakumaran, B. & Marshall, R. (2010). Impulse Buying and Variety Seeking: a Trait-Correlates Perspective. *Journal of Business*, 63, 276-283.
- Sit, J., Merrilees, B. & Birch, D. (2003). Entertainment-Seeking Shopping Centre Patrons: the Missing Segments. *International Journal of Retail & Distribution Management*, 31(2), 80-94.
- Stoel, L., Wickliffe, V. & Lee, K.H. (2004). Attributes Beliefs and Spending on Antecedents to Shopping Value. *Journal of Business Research*, 5, 1067-1073.
- Strauss, W. & Howe, N. (1999). *The Fourth Turning*. New York: Broadway Books.
- Teller, C. & Reutterer, T. (2008). The Evolving Concept of Retail Attractiveness: What Makes Retail Agglomerations Attractive when Customers Shop at them? *Journal of Retailing & Consumer Services*, 15(3), 127-143.
- Terblanche, N.S. (1999). The Perceived Benefits Derived from Visits to a Super Regional Shopping Centre: An Exploratory Study. *South African Journal of Business Management*, 30(4), 141-146.
- Wakefield, K.L. & Baker, J. (1998). Excitement at the Mall: Determinants and Effects of Shopping Response. *Journal of Retailing*, 74(4), 515-539.
- Wesley, S., Lehew, M. & Woodside, A.G. (2006). Consumer Decision-Making Styles and Mall Shopping Behaviour: Building Theory Using Exploratory Data Analysis and the Comparative Method. *Journal of Business Research*, 59, 535-548.
- Wong, G., Yu, L. & Yuan, L. (2001). SCATTR: an Instrument for Measuring Shopping Centre Attractiveness. *International Journal of Retailing & Distribution Management*, 29(2), 76-86.

DEVELOPING A NEW VARIABLES SAMPLING PLAN FOR PRODUCT ACCEPTANCE DETERMINATION BASED ON THE PROCESS YIELD

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ABSTRACT

The aim of this paper is to develop an effective sampling plan, called variables repetitive group sampling (VRGS) plan, based on process yield index with two-sided specification limits. The plan parameters are solved by a nonlinear optimization model where the objective function is to minimize the average sample number (ASN) and the constraints are formulated by acceptable quality level (AQL), limiting quality level (LQL), producer's risk and consumer's risk under the operating characteristic (OC) curve. The plan parameters are tabulated and the results show that the proposed plan requires less sampling than does variables single sampling plan under the same conditions.

INTRODUCTION

Acceptance sampling is a useful tool which can help both vendors and buyers to make a decision for determining whether a batch or a lot of product should be accepted or rejected. Since 100% inspection is usually impractical and the inspection cost may be extremely high if the inspected item is very expensive or destructive testing. Thus, a well-designed and efficient acceptance sampling plan becomes very attractive and essential. In general, acceptance sampling plans contains two types, attributes and variables. Even it is too costly to do the variables sampling plan than do attributes, but we can obtain more information from the real process which can help engineers to control and monitor the process. Furthermore, it has been investigated that the expected sample size for inspection of variables sampling plan is smaller (Hamaker, 1979; Kao, 1971; Montgomery, 2009).

In the literature, several acceptance sampling plans are designed based on different philosophies and purposes. A new sampling scheme named repetitive group sampling (RGS) plan was firstly proposed by Dr. Sherman for measuring attributes data (Sherman, 1965). Dr. Sherman emphasizes that the RGS plan can obtain the minimum sample size as well as the same protection. Balamurali *et al.* (2005) and Balamurali and Jun (2006) extended the attributes repetitive group sampling (RGS) plan concept to variables RGS plan, and also compute the average sample number (ASN) of variables RGS plan based on known and unknown sigma. Their computation shows that the required sample size of their proposed approach will be smaller than variables single sampling and double sampling plan.

The purpose of this paper is to develop a variables RGS plan for processes with two-sided specification limits which based on the process yield. The results indicate that the proposed sampling plan has idealized OC curve shape and requires fewer sample size for inspection but provide the same protection for both vendors and buyers.

Process Yield Index

Since the simplest process capability index C_p was proposed by Dr. Kane in 1986 (Kane, 1986), there are several advanced capability indices were developed for measuring process performance from different

perspectives in order to provide more accurate measures on process quality (Kotz and Johnson, 2002; Wu *et al*, 2009). These capability indices have become popular to determine whether the process is capable of reproducing products satisfying the quality requirement. Some basic capability indices are defined as follows:

$$C_a = 1 - \frac{|\mu - m|}{d}, C_p = \frac{USL - LSL}{6\sigma}, C_{pk} = \min \left\{ \frac{USL - \mu}{3\sigma}, \frac{\mu - LSL}{3\sigma} \right\}$$

where $d = (USL - LSL)/2$, $m = (USL + LSL)/2$, USL is upper specification limit and LSL is lower specification limit. In order to provide an exact measure on the process yield, Boyles (1994) developed the process yield index S_{pk} . It is defined as:

$$S_{pk} = \frac{1}{3} \Phi^{-1} \left\{ \frac{1}{2} \Phi \left(\frac{USL - \mu}{\sigma} \right) + \frac{1}{2} \Phi \left(\frac{\mu - LSL}{\sigma} \right) \right\}.$$

There is a one-to-one relationship between the yield index S_{pk} and the process yield %Yield or the number of nonconformities in units of parts per million (PPM) for processes with two two-sided specification limits. That is, the process yield can be expressed as %Yield = $2\Phi(3S_{pk}) - 1$ and the relationship between S_{pk} and the number of nonconformities in PPM can be expressed as $NCPPM = 2[1 - \Phi(3S_{pk})] \times 10^6$ or $S_{pk} = 1/3 \Phi^{-1} [1 - (NCPPM \times 10^{-6} / 2)]$. For example, if %Yield = 99.9990% or the number of nonconformities is 10 PPM, then the corresponding S_{pk} value is approximately to 1.4724. In practical situations, the process mean and standard deviation are usually unknown, hence, we need to use $\bar{x} = (\sum_{i=1}^n x_i) / n$ and $s = [(n-1)^{-1} \sum_{i=1}^n (x_i - \bar{x})^2]^{1/2}$ to be the estimators of μ and σ and the estimator of S_{pk} can be defined as: $\hat{S}_{pk} = 1/3 \times \Phi^{-1} \left\{ 1/2 \times \Phi \left(\frac{USL - \bar{x}/s}{\sigma} \right) + 1/2 \times \Phi \left(\frac{\bar{x} - LSL/s}{\sigma} \right) \right\}$. It can be seen that the sampling distribution of \hat{S}_{pk} is a complex function and intractable to obtain. Therefore, Lee *et al.* (2002) obtained a normal approximation distribution by using Taylor expansion method and the estimator \hat{S}_{pk} is approximately distributed as $N(S_{pk}, [a^2 + b^2] \{36n[\phi(3S_{pk})]^2\}^{-1})$. The probability density function of \hat{S}_{pk} can be expressed as:

$$f_{\hat{S}_{pk}}(x) = \sqrt{\frac{18n}{\pi}} \frac{\phi(3S_{pk})}{\sqrt{a^2 + b^2}} \exp \left[-\frac{18n(\phi(3S_{pk}))^2}{a^2 + b^2} (x - S_{pk})^2 \right], -\infty < x < \infty,$$

where a and b are functions of μ and σ , and can be defined as follows:

$$a = \frac{1}{\sqrt{2}} \left\{ \frac{USL - \mu}{\sigma} \phi \left(\frac{USL - \mu}{\sigma} \right) + \frac{\mu - LSL}{\sigma} \phi \left(\frac{\mu - LSL}{\sigma} \right) \right\},$$

$$b = \phi \left(\frac{USL - \mu}{\sigma} \right) - \phi \left(\frac{\mu - LSL}{\sigma} \right),$$

and ϕ is the probability density function (PDF) of the standard normal distribution $N(0,1)$.

Developing a Variables RGS Plan Based on Process Yield Index

Suppose that the quality characteristic of interest follows a normal distribution and has two sided specification limits (LSL and USL). A commonly-used approach for developing a sampling plan is to require that the OC curve passing through two specified points, say (AQL, $1 - \alpha$) and (LQL, β). This implies that the probability of acceptance must be greater than $1 - \alpha$ if the quality level of the submitted lot is at the contracted AQL (i.e., $p_1 = p_{AQL}$ or $S_{pk} = S_{AQL}$). And, the probability of acceptance would be no more than β if the quality level of the submitted lot is only at RQL ($p_2 = p_{LQL}$ or $S_{pk} = S_{LQL}$), where α and β are usually called the producer's risk and the consumer's risk, respectively.

Let P_a and P_r be the probability of accepting and rejecting the entire product items respectively based on a single sampling under variables RGS plan with parameters (n, k_r, k_a) when the number of nonconformities is equal to p PPM.

$$P_a(p) = P(\hat{S}_{pk} > k_a | p)$$

$$P_r(p) = P(\hat{S}_{pk} < k_r | p)$$

The probability of repeating the sampling P_R can be expressed as:

$$P_R(p) = P(k_a < \hat{S}_{pk} < k_r | p) = 1 - P_a(p) - P_r(p)$$

The OC function can be expressed as:

$$\pi_A(p) = \frac{P_a(p)}{P_a(p) + P_r(p)}$$

According to the two-point condition on the OC curve, the plan parameters can be determined by satisfying the following two equations:

$$\pi_A(p_{AQL}) = \frac{P_a(p_{AQL})}{P_a(p_{AQL}) + P_r(p_{AQL})} \geq 1 - \alpha$$

$$\pi_A(p_{LQL}) = \frac{P_a(p_{LQL})}{P_a(p_{LQL}) + P_r(p_{LQL})} \leq \beta$$

The plan parameters (n, k_a, k_r) for variables RGS plan based on the process yield index S_{pk} could be several different combinations for satisfying the given risks simultaneously. Firstly, we have to determine the value of parameters which can obtain the smallest required sample size for inspection (Balamurali *et al.*, 2005). Therefore, the simple idea is to use the average sampling number (ASN) as an objective function, and it should be minimized with two constraints, $\pi_A(p_{AQL})$ and $\pi_A(p_{LQL})$ under the quality level p PPM. The ASN function can be calculated by:

$$ASN(p) = \frac{n}{P_a(p) + P_r(p)}$$

It is usual to formulate the objective function at the quality level p_{AQL} (Wu, 2012), then the plan parameters (n, k_r, k_a) can be determined by solving the following nonlinear programming problem as follows.

$$\text{Min}_{n, k_a, k_r} ASN(p_{AQL}) = \frac{n}{P_a(p_{AQL}) + P_r(p_{AQL})}$$

subject to

$$\pi_A(p_{AQL}) \geq 1 - \alpha$$

$$\pi_A(p_{LQL}) \leq \beta$$

$$p_{AQL} < p_{LQL}, k_a \geq k_r > 0.$$

The Computation of the Plan Parameters

Table 1 shows the plan parameters for various conditions by solving the nonlinear optimization model. From the given tables, we can easily to determine the sample size n and the corresponding critical value for acceptance k_a

and critical value for rejection k_r . For instance, the given requirements are $(p_{AQL}, p_{LQL}) = (100, 1000)$ and $\alpha = 0.05$, $\beta = 0.10$, the plan parameters can be obtained as $(n, k_r, k_a) = (55, 1.1420, 1.2849)$ and the average sample number is 94.

Please note that, if we solve the nonlinear optimization model under $k_a = k_r$, the variables RGS plan will reduce to the conventional variables single sampling plan. Under the same conditions, the required sample size n and the corresponding critical value c_0 can be obtained as $(n = 157, c_0 = 1.1763)$ by the variables single sampling plan. A desired sampling plan would be achieved if the required sample size for inspection is minimal and provided the same protection for both vendors and consumers (Balamurali and Jun, 2009). Hence, our proposed plan shows more economic and efficient than the traditional variables single sampling plan because it reduces sample size required for inspection on product acceptance determination.

Table 1: The plan parameters of the proposed method for various conditions.

p_{AQL}	p_{LQL}	$\alpha = 0.010$				$\alpha = 0.050$			
		$\beta = 0.050$				$\beta = 0.100$			
		n	k_a	k_r	ASN	n	k_a	k_r	ASN
1	100	51	1.5761	1.2259	79	29	1.6051	1.2203	50
	500	23	1.5525	1.0261	36	13	1.5985	1.0119	23
	1000	17	1.5408	0.9262	27	10	1.5957	0.9067	17
	3000	11	1.5195	0.7466	17	6	1.5862	0.7235	11
100	500	218	1.2747	1.1424	338	126	1.2849	1.1420	214
	1000	96	1.2644	1.0628	149	55	1.2805	1.0608	94
	3000	36	1.2464	0.9152	57	21	1.2745	0.9085	36
500	1000	869	1.1500	1.0911	1335	503	1.1543	1.0913	846
	3000	106	1.1325	0.9611	164	60	1.1461	0.9596	103
1000	3000	254	1.0794	0.9758	393	146	1.0873	0.9756	249

Figure 1 shows the OC curves of the variables single sampling plan with two parameters and the proposed variables RGS plan. The OC curve shows the discriminatory power of sampling plan. Obviously, the proposed variables RGS plan obtains more idealized shape of OC curve because it has steeper slope.

CONCLUSIONS

According to highly required quality levels today, the traditional method may inappropriate for adequately reflecting the actual lot quality, especially the fraction of nonconformities is extreme low. The process yield index S_{pk} can be used to evaluate for processes with two-sided specification limits and also provide an exact measure on process yield. Therefore, we develop a variables RGS plan based on the S_{pk} index for lot sentencing. The results show that the proposed plan requires fewer sample size for inspection and has a better OC curve than the conventional variables single sampling plan. In addition, tables of plan parameters of the proposed plan are provided for users to easily determine the sample size for inspection and the corresponding critical value for making decisions.

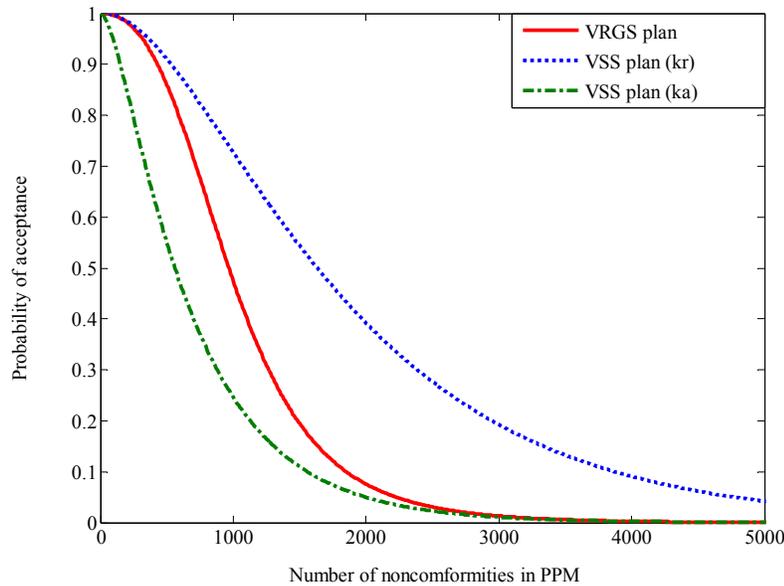


Figure 1: The OC curve of VSS plan under $(n = 100, c_0 = 1.05)$ and $(n = 100, c_0 = 1.15)$ and VRGS plan $(n = 100, k_r = 1.05, k_a = 1.15)$.

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REFERENCES

- Balamurali, S., Park, H., Jun, C. H., Kim, K. J., & Lee, J. (2005). Designing of variables repetitive group sampling plan involving minimum average sampling number. *Communications in Statistics: Simulation and Computation*, 34:799-809.
- Balamurali, S., & Jun, C. H. (2006). Repetitive group sampling procedure for variables Inspection. *Journal of Applied Statistics*. 33(3):327-338.
- Boyles, R.A. (1994). Process capability with asymmetric tolerances, *Communications in Statistics: Simulation and Computation*, 23(3):615-643.
- Hamaker, H. C. (1979). Acceptance sampling for percent defective by variables and by attributes. *Journal of Quality Technology*, 11:139-148.
- Kane, V. E. (1986). Process capability indices. *Journal of Quality Technology*. 18(1):41-52.
- Kao, J. H. K. (1971). MIL-STD-414: sampling procedures and tables for inspection by variables for percent defective. *Journal of Quality Technology*, 3:28-37.
- Kotz, S., & Johnson, N. L. (2002). Process capability indices – A review, 1992-2000. *Journal of Quality Technology*. 34(1):1-19.

Lee, J.C., Hung, H.N., Pearn, W.L., & Kueng, T.L. (2002). On the distribution of the estimated process yield index S_{pk} , *Quality and Reliability Engineering International*, 18(2),111-116.

Montgomery, D.C. (2009). *Introduction to Statistical Quality Control* (6th Edition), Wiley, New York.

Sherman, R. E. (1965). Design and evaluation of a repetitive group sampling plan. *Technometrics*. 7:11-21.

Wu, C. W. (2012). An efficient inspection scheme for variables based on Taguchi Capability index. *European Journal of Operational Research*. 223(1):116-122.

Wu, C.W., Pearn, W.L., & Kotz, S. (2009). An overview of theory and practice on process capability indices for quality assurance, *International Journal of Production Economics*, 117(2), 338-359.

A GREEK WEDDING IN SADC? TESTING FOR STRUCTURAL SYMMETRY TOWARDS SADC MONETARY INTEGRATION

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ABSTRACT

This paper investigates structural symmetry among SADC countries in order to establish, judged by modern OCA theory, which of these countries may possibly make for a good monetary matrimony and which countries may be left out in the cold. SADC remains adamant that it would conclude monetary union by 2018. It can ill afford a repeat of the type of financial and fiscal instability brought about by ex ante structural economic differences and asynchronous business cycles in the EU. This study contributes to the literature on macro-economic convergence in the SADC region. We make use of the Triples test to analyze each country's business cycles for symmetry and then evaluate SADC countries' ratio of relative intensity of co-movements in business cycles with co-SADC country and versus that of major trade partners. We find that not all countries in SADC conform to OCA criteria judged by both asymmetrical business cycles and weak co-movements in business cycles.

INTRODUCTION

African Union (AU) member states want to establish regional monetary integration with the belief that it would further overall integration and bring about a large number of economic benefits to the continent. In spite of many attempts to integrate African economies on a regional basis, overlapping membership of various Regional Economic Communities (RECs) and a lack of investment in the institutions and systems required for integration, are seen as the main reasons why the economies of most African countries remain detached from each other (ECA, 2010; Jovanovich, 2006). Even though the East African Community (EAC) has lost some momentum with integration, it is now targeting monetary union and ultimately a Federation (Buigut and Valev, 2006). The pace of integration among the Central African Economic and Monetary Community (CEMAC), the Economic Community of West African States (ECOWAS), and the Common Market for Eastern and Southern Africa (COMESA) has been very slow and complicated (World Bank, 2000; ECA, 2004). In the southern part of the continent, the Southern African Development Community (SADC) is moving towards the creation of a monetary union by 2018 (Belle, 2010). The economic integration in southern African countries is one of the oldest economic integration initiatives in the world and could be traced back to the Southern African Customs Union (SACU) which was created in 1910 between South Africa and its neighbours.

The launch of the European Monetary Union (EMU) in the early 2000s has sparked renewed interest in the creation and expansion of monetary unions across the world (Alesina et al., 2002; Masson and Pattillo, 2005, and Jefferis, 2007). Nevertheless, to pursue meaningful and effective monetary union in different parts of Africa, it is important to learn from already established monetary unions in the world. The United States enjoys a much higher degree of economic integration when compared to Europe. However, it took the United States at least one hundred and fifty years and several financial crises to become a monetary union (Rockoff, 2000). Currently the viability of the European monetary system is questioned as a result of the crisis that started in Greece and culminated into a crisis of the whole Euro zone. Portugal, Italy, Ireland, Greece and Spain (together known as

the PIIGS) are now depending on their rescue from the strong EU economies. As we show in our literature review, the PIIGS, and particularly Greece, did not comply with OCA theory prior to accession when measured against the criteria of business cycle synchronisation. Could the crisis have been avoided had the PIIGS complied with proper Optimal Currency Area (OCA) criteria prior to accession to the EMU?

The focus in this paper is on investigating the similarity of business cycles of SADC countries. This is firstly done by evaluating each country's real GDP (measure of business cycle) for symmetry. Secondly, SADC countries are then paired with each other, with non-SADC African countries and with major external trade partners and the co-movement in business cycles as a result of real shocks evaluated. For this very reason, this study is undertaken – to ascertain which countries in SADC could join in monetary matrimony without running the risk of destabilising the union, as was the case with the PIIGS.

Comovement and Optimum Currency Area (OCA) Theory

The theory of optimal currency areas, from the classic contributions by Mundell, 1961; McKinnon, 1963; Kenen, 1969; and Ingram, 1973 to its modern applications and revisions stresses that asymmetric, country specific shocks represent a key element in the choice of an exchange rate regime or of adopting a common currency. There are two broad approaches to modern OCA theory: the *traditional* and *endogenous approaches* (Tavlas, 2009). The traditional approach assumes that a country's characteristics are invariant to the adoption of a common currency while the endogenous approach assumes that a monetary union alters the economic structure of members. It is postulated that business cycle movements would become more similar over time for countries that join a monetary union. The argument for an endogenous optimal currency area emphasises that the monetary union itself could act as a catalyst for business cycle synchronisation, essentially by reducing foreign exchange transaction costs and therefore by promoting trade integration across countries (Corsetti and Pesenti, 2002).

However, there are counter arguments to the above. Eichengreen (1992) and Krugman (1993) stress that monetary integration could lead to greater specialisation in production, thus lowering output correlation and making regions more vulnerable to local shocks. Evidence presented by Frankel and Rose (1998) however, supports the view that trade links raise income correlations. The conclusion is that the OCA criterion may be satisfied ex-post even if it fails ex-ante (Corsetti and Pesenti, 2002).

Traditional OCA theory however, states that the requirements for suitable monetary unions are the symmetry of shocks, the mobility of factors, the diversification of factors of production, the similarity of inflation rates, the flexibility of wages and prices and the capacity of risk sharing (Tapsoba, 2009). As clearly stated by De Haan (2008), if business cycles in countries forming a monetary union diverge considerably the common monetary policy will not be optimal for all countries concerned. This is because countries in the downward phase of the cycle might prefer a more expansionary monetary policy while countries in the upward phase of the cycle might prefer a more restrictive policy stance. This study attempts to evaluate the feasibility of SADC monetary integration in line with modern OCA theory focusing on business cycle symmetry and co-movement *ex ante*.

Structural Symmetry and SADC Monetary Integration-Lessons from EMU

Economic heterogeneity across regions and countries is, in many ways, a vital sign of growing and healthy economies. However, OCA literature has for long emphasised that some elements of economic heterogeneity increase the likelihood of a-synchronous business cycle fluctuations at a regional level. Such fluctuations, according to Corsetti (2008), work against achieving the common goals of a currency area. This is evident from the experience of the EMU. Using an HP filter Boone and Maurel (1998) calculate correlation coefficients between the cyclical components of industrial production and unemployment rates for selected Central and Eastern European Countries (CEECs) against Germany and the EU. These authors find a relatively high degree of business cycle correlation for the CEECs with Germany, indeed higher than for Portugal or Greece. Because of technologically inferior production systems and a lower competitive position in the region, EMU countries such as Greece, have shown lack of cyclical convergence within the Euro area (Gouveia and Correia, 2008) and little sign of convergence (Crowley and Lee, 2005) (all discussed in Tsiapa and Panteladis, 2011). Using a Bayesian dynamic factor model, Lehwald (2012) examines the co-movements of output, investment and

consumption among Euro area countries before (1991-1998) and after (2000-2010) monetary union and finds that the co-movements of the main macroeconomic variables increase for core European countries from the first to the second period, while it decreases for most PIIGS economies. Böwer and Guillemineau (2006) also found that the correlation of Greece's main macroeconomic variables with the rest of the Euro members reduced after accession to the EMU.

Within the SADC context, integrated development of the region as a whole is a priority. Despite large differences in the levels of economic activity and the peculiar structural features of the fifteen member countries, there is hope that all could potentially benefit significantly from regional monetary integration and economic co-operation (Khamfula and Mengsteab, 2004). However, Khamfula and Huizinga (2004) posit that the very diverse economic structures among these countries pose a very serious obstacle to regional monetary integration in SADC.

There are many questions that require answers before adopting monetary union in SADC (Jovanovic, 2006). Modern OCA theory emphasises, among other things, the importance of having symmetrical business cycles. This is certainly helpful if there is one common currency, hence one common exchange rate and one common monetary policy with which to stabilise the economies of the union in the face of external shocks. Specifically, asymmetric real shocks weaken the case for a common currency, as member states of a monetary union lose their ability to use domestic exchange- and interest rate policies for stabilisation purposes. General inferences of studies undertaken so far explicitly state that a common currency and single monetary policy may not be appropriate to all SADC countries. Some authors, however, obtained results supportive of a monetary union comprising a relatively small group of countries, usually including South Africa, sometimes with other Common Monetary Area (CMA) countries. Such findings should not be surprising for the same reason that similar results had been obtained for Euro-area countries prior to the formation of European monetary union. Tavlas (2009, p.24), in his summary of many studies carried out from late 1990s to 2007 concluded that the results are mixed and countries in the region with a higher share of trade with South Africa exhibit relatively higher co-movements in output growth.

In their review of the costs and benefits for South Africa of joining a SADC monetary union, Khamfula and Mengsteab (2004) state that it is unlikely that economic integration can flourish in the southern African region. They also caution that integration among countries with divergent levels of economic growth might run into serious problems. Instead they recommend adopting a common monetary area (CMA) such as that exists among South Africa, Namibia, Swaziland and Lesotho as a pace setter to the formation of a fully-fledged monetary union in the SADC region.

Bayoumi and Ostry (1997) in their study of 11 SADC countries found that bilateral correlations among SADC countries tend to be positive but small and insignificant, while the few positive and significant shocks do not involve continuous states. In contrast, Karras (2007) calculated correlations for 9 SADC countries against the SADC as a whole, and suggest monetary union of Malawi, Mozambique, South Africa, Zambia, and Zimbabwe. Similarly, Buigut and Valev (2006), using the Blanchard-Quah decomposition technique suggest a monetary union of the CMA countries including Mozambique and Zambia. Using the same technique aided by cluster analysis to group several variables, Buigut (2006) also obtained support for a monetary union, under the assumption that the rand was the anchor currency, for a small group of countries. His optimum cluster analysis supported monetary union comprising Botswana, Namibia, Seychelles, South Africa, and Swaziland. Grandes (2003), Khamfula and Huizinga (2004) provide support for monetary union among the same five countries. Results obtained by Masson and Pattillo (2005) and Wang et al. (2006) are less supportive of monetary union among SADC countries.

Following the *endogenous* approach to OCA theory, Frankel and Rose (1998) state that an economy that fails to satisfy OCA criteria prior to entry into a monetary union can satisfy the criteria after joining the union. Studies following the endogenous OCA approach were conducted in relation to SADC by Guillaume and Stasavage (2000), Carrere (2004), Masson and Pattillo (2005), and Masson (2006). Guillaume and Stasavage in their study covering the period 1968-93 for 5 core SADC countries analyse the credibility of a regional central bank by comparing measures of checks and balances in political systems including the degree of party fractionalisation and levels of constraints at the executive branch. They found mixed results. Low-party fractionalisation and low levels of constraint on executive branches indicated a low cost of breaking rules, which

is unfavourable for monetary union. Ease of exit and non-compliance from regional agreements has rarely been favourable for monetary union. Carrere (2004) in his analysis of trade creation uses a sample covering the period 1995-98 for 14 SADC countries using a gravity model. He uses bilateral nominal exchange-rate volatility as a proxy for the common-currency effect and obtained inconclusive results. Masson and Pattillo (2005) used a gravity model to assess trade-creation effects for 13 SADC countries and recommend a gradual and selective path to monetary union in the region. Later, Masson (2006) in his independent study for 15 SADC countries for the sample period covering 1995-2000 extended Masson and Pattillo's calibration model to include endogenous trade-creation effects. His study shows that under symmetric monetary union conditions, the costs of union exceeded the benefits for four CMA countries. Most other countries were net gainers.

Nowhere in the literature could evidence be found that member countries' business cycles consistently move closer together over time after having become part of a monetary union. Empirical evidence in support of endogenous OCA theory is thus weak. In fact, empirical evidence suggests that the business cycles of Greece, for example, tended to diverge more from other EMU members after accession. For this reason, a sober policy option in the presence of asymmetric business cycles and weak co-movement of business cycles would be not to accede to membership of a monetary union. For this reason we support a policy of compliance to these OCA criteria prior to accession.

The literature surveyed in the preceding paragraphs contains mixed evidence as the symmetry and co-movement of various macro variables of SADC member countries are concerned. When we infer lessons from EMU in the context of SADC in line with structural asymmetry of business cycles we should also note that there are other factors other than the lack of cyclical convergence within the Euro area. For example, there are other arguments like; clash between economic and political forces within the euro area (Darvas, 2012) and sovereign debt crisis in Europe (Martin and Waller, 2012; Mongelli, 2013). Weeks (2013) also demonstrates that the German export-led growth strategy as a "beggar-thy-neighbour" strategy that generated large trade and current account deficits throughout the euro-zone in the 2000s.

In the sections that follow, we introduce and apply methodologies that were found to provide robust results in the study of time-series cycles. These methodologies are however novice to the study of business cycles in SADC, hence two new contributions are made to the study of monetary integration and specifically the analysis of business cycle symmetry and co-movement in SADC: updated data and new techniques.

METHODOLOGY

Data

In this paper we use annual real GDP data measured in 2005 constant US dollar prices for all fifteen SADC countries as well as of Africa's fifteen major trade partners for the years 1970 – 2010. Real GDP is preferred in this study because it is the most comprehensive measure of economic activity and it is generally available for African countries on annual basis (Tapsoba, 2009; Mendonça, et al, 2011). Data were obtained from the World Bank's *World Development Indicators*, UN *statistics*, and the IMF's *International Financial Statistics*.

Table 1: Descriptive Statistics of Real GDP of SADC (1970-2010)

Country	Country Code	N	Minimum	Maximum	Mean	Std. Deviation
Angola	AGO	40	1.1928E9	5.3656E9	1.971519E9	1.1347071E9
Lesotho	LSO	40	2.5756E8	1.6380E9	8.596244E8	3.9748264E8
Botswana	BWA	40	1.1928E10	5.3656E10	1.971519E10	1.1347071E10
Madagascar	MDG	40	2.5756E8	1.6380E9	8.596244E8	3.9748264E8

Malawi	MWI	40	3.7876E8	1.1845E10	4.878896E9	3.7484315E9
Mauritius	MUS	40	3.1931E9	6.0226E9	3.937153E9	8.2769429E8
Mozambique	MOZ	40	8.3329E8	3.9799E9	1.996265E9	7.3295242E8
Namibia	NAM	40	1.0561E9	8.1212E9	3.762245E9	2.1153807E9
Seychelles	SYC	40	1.6794E9	9.3240E9	3.574007E9	2.1467677E9
South Africa	ZAF	40	1.0562E11	2.8844E11	1.786916E11	5.0376219E10
Swaziland	SWZ	40	2.0511E8	1.2124E9	6.443806E8	2.8978468E8
Tanzania	TZA	40	3.6645E9	1.9682E10	8.278777E9	4.3294791E9
Zambia	ZMB	40	4.2368E9	9.8903E9	5.705324E9	1.3328577E9
Zimbabwe	ZWE	40	3.6482E9	8.7530E9	6.168796E9	1.4522248E9
Demo. Rep. of Congo	DRC	40	5.6939E9	1.1564E10	8.739692E9	1.7228744E9

Source: own computation

Table 1 presents descriptive statistics of SADC countries. Considering average GDP over 40 years, South Africa is, by far, the country with highest real GDP in the region. However, South Africa has the largest fluctuations in real GDP measured by highest standard deviation over the sample period. The rest of the member states have a comparable size of real GDP while Lesotho, Madagascar, and Swaziland have the lowest real GDP respectively.

Methodology for Evaluating Business Cycle Asymmetry and Synchronisation

The Triples Test

In this study we use a nonparametric method called the Triples test - first developed by Randles et al. (1980) and later introduced to the economics literature by Verbugge (1997) and Razzak (2001), respectively. The reason to adopt the Triples test is its accessibility and superior results. The Triples test method is more efficient than many other methods used in the literature to detect symmetry. The other good reason is that it is asymptotically distribution free, which means that the outliers and changes in the variance of the distribution of the time series cannot affect the test.

To perform the Triples test, we face the immediate problem of decomposing the series into trend and cyclical components. To carry out the Triples test, the series needs to be decomposed and de-trended to leave only the cyclical component of the series. We use the Baxter and King (1999) filter (B-K filter) to do this. The B-K filter was developed as a method to isolate business cycle components by applying moving averages to the macroeconomic data. The band pass filter designed by Baxter and King (1999) passes through the components of the time series with fluctuations between 6 (18 month) and 32 (96 month) quarters, removing higher and lower frequencies.

We then apply the Triples test to evaluate the symmetry of the classical cycles. Intuitively, the Triples test counts all possible triples from a sample of size N (i.e., $\binom{N}{3}$ combinations) of a univariate time series. When most of the triples are right-skewed, the time series said to be asymmetric. If i, j , and k are three distinct integers such that $1 \leq i, j, k \leq N$, the triple of observations x_i, x_j, x_k forms a right triple or skewed to the right if the middle observation is closer to the smallest observation than it is to the largest observation. This is illustrated by:

This is a two-sided test, but could possibly be a one-sided test. This test is used to test the hypothesis that the distribution is symmetric around the unknown median θ against a broad class of asymmetric alternatives. The Triples test interpretation goes with hypothesis testing in equation (8). If we have significant evidence to reject the null hypothesis it means asymmetry. If we fail to reject the null hypothesis the opposite holds true.

The simple nature of $f^*(\cdot)$ makes ζ_1, ζ_2 , and ζ_3 expressible in terms of probabilities, and thus it is possible to use U statistics to estimate these quantities consistently as follows:

$$\zeta_1 = \text{var}[f_1^*(x_1)], \text{ with } f_1^*(x_1) = E[f_1^*(\cdot)] \quad (9)$$

$$\zeta_1 = N^{-1} \sum_{i=1}^N (f_1^*(x_i) - \eta)^2, \quad (10)$$

Where

$$f_1^*(x_i) = \binom{N-1}{2} \sum_{\substack{j < k \\ j \neq i \neq k}} f_1^*(x_i, x_j, x_k) \quad (11)$$

Similarly,

$$\zeta_2 = \frac{1}{\binom{N}{2}} \sum_{j < k} \sum f_2^*(x_i, x_k) - \hat{\eta}^2 \quad (12)$$

Where

$$f_2^*(x_i, x_k) = \frac{1}{N-2} \sum_{\substack{i=1 \\ j \neq i \neq k \\ i \neq k}} f^*(x_i, x_j, x_k), \quad (13)$$

And,

$$\zeta_3 = \frac{1}{9} - \hat{\eta}^2 \quad (14)$$

Replacing each with ζ_i and $\hat{\zeta}_i$ in the expressions σ_N and σ_A gives the estimators $\hat{\sigma}_N$ and $\hat{\sigma}_A$. Both estimators are consistent because each $\hat{\zeta}_i$ is written as a linear combination of U statistics. To test the hypothesis in (8), the Triples test is defined based on $T_1 = n^{1/2} \hat{\eta} / \hat{\sigma}_N$ and an associated test based on

$T_2 = n^{1/2} \hat{\eta} / \hat{\sigma}_A$ so that they reject H_0 as $|T_i| > Z_{(\alpha/2)}$ as the upper percentile of the standard normal distribution. Note that these tests are asymptotically distribution free provided only that the underlying distribution is not degenerate. Although we have illustrated how to construct an asymptotically distribution-free test of (8), we should keep in mind that the parameter η is defined in terms of the distribution of the triple X_1, X_2 and X_3 rather than the original F distribution. Results from Triple test are reported in Tables 1 and 2, and in the other tables reported in the annexure.

Correlation of cyclical and structural components bilateral co-movement

The next step in our analysis is to evaluate the bilateral co-movement of cycles by first considering pairs of SADC countries and pairs of SADC versus main trading partner countries. Following Croux et al. (2001) on the definitions of dynamic and static correlations in the particular case of a bivariate analysis and the notion of cohesion introduced by Tripier (2002), we can have the following notation specifying the coherency of the real GDPs of every pair of countries in our data sample.

Let's denote $r_{xy}(w)$, as the first co-movement index. It is defined by

$$r_{xy}(\omega) = \frac{S_{xy}(\omega)}{\sqrt{S_x(\omega)S_y(\omega)}} \quad (15)$$

Where $S_{xy}(\omega)$ is the cross spectrum between real GDPs of pair of countries, $S_x(\omega)$ and $S_y(\omega)$ are spectrum of every pair of countries in our analysis. This index in equation (1) measures the correlation between the complex representations of X_t and Y_t at frequency ω . Unfortunately, since the cross spectrum has an imaginary part this index is not real (Tripiet, 2002). To obtain a more convenient measure of co-movement, the squared coherency $r_{XY}^2(\omega)$ is then generally preferred in the literature. It is defined by:

$$r_{XY}^2(\omega) = \frac{|S_{xy}(\omega)|^2}{S_x(\omega)S_y(\omega)} \quad (16)$$

To obtain results from equation (15) we apply a simple regression to each pair of countries and extract the R^2 of the regression as a measure of the strength of the connection between the cyclical components of real GDP between the pair of countries in the region and among major trade partners. As rule of thumb, R^2 values higher than 0.5 exhibit moderate to strong co-movements while values below 0.5 shows a weak connection among the country pair. The results from this process are reported in Table 4.

Lastly, using the coefficient of determination computed in equation (16), we compute SADC countries' ratio of relative intensity of co-movements (RICM) versus each other and that of major trade partners as follows:

$$RICM = \frac{\sum_{y=SADC} SADC R^2}{\sum_{y=nonSADC} nonSADC R^2} = \frac{\sum_{y=SADC} r_{XY}^2}{\sum_{y=nonSADC} r_{XY}^2} \quad (17)$$

The results from the above computation are reported in Table 5.

RESULTS

In the first part of this section results from the Triples test and graphical illustration of the co-movements in log real GDP are presented. The second part presents evidence from bilateral co-movements using the coefficient of determination as a measure of cyclical co-movements and we discuss the index of relative intensity of co-movement as a measure of relative strength of co-movement between pairs of member states and pairs of member states and their trade partners.

Triples Test Results

The Triples test statistics for symmetry for SADC countries are shown in Tables 2 and 3. As shown in both Tables symmetry in the first-difference dominates in SADC region. Figure 1 also supports the same line of argument showing that the real GDP of many of the SADC countries exhibits symmetry and possible co-movement. The null hypothesis is rejected only in the case of Malawi, Mozambique, South Africa, Swaziland and the Democratic Republic of Congo (DRC). The resulting tests are consistent because in the majority of the cases 'h' is statistically different from zero (Randles et al., 1980). This implies that the null hypothesis stated in equation (9) is not rejected in the majority of the cases and the test asserts that the log of the first difference of real GDP data in this analysis is symmetrical. As shown in Table 2 below, when the p-value is greater than 0.05, we fail to reach significance; therefore the null hypothesis is not rejected in the majority of cases.

Madagascar, Malawi, Mozambique, South Africa, Tanzania, Zambia and DRC show *negative* coefficients of symmetry (η) as shown in table below. In other words, half of SADC member states including five of the most important economies in the region have negative symmetrical business cycles. Negative symmetry implies that the time series falls rapidly, but rises very slowly. This indicates that for the most

important SADC members, economic recovery happens far slower than the preceding downswing. It also indicates that expansionary policy measures may be inadequate or that policy harmonisation and bilateral/multilateral co-operation among the member states are weak. However, the rest of the SADC countries exhibit *positive* symmetry. The majority of the industrialised trade partners to the region also exhibit *negative* symmetry (the results are not reported here). Positive symmetry implies that GDP undergoes rapid increases over a short period of time and slow, gradual decreases over long periods of time.

Table 2: SADC Countries log difference Triples Test Statistics for Symmetry (1970-2010)

Country	η	Ksi1(ζ_1)	Ksi2(ζ_2)	Ksi3(ζ_3)	U-stat.	P-value ($\alpha=0.05$)
AGO	0.0285	0.0045	0.0230	0.1103	0.8328	0.1977
LSO	0.0209	0.0070	0.0266	0.1107	0.5013	0.2912
BWA	0.0330	0.0054	0.0200	0.1100	0.9087	0.1711
MDG	-0.0473	0.0045	0.0188	0.1089	-1.406	0.0749
MWI	-0.0405	0.0047	0.0199	0.1095	-1.175	0.0401
MUS	0.0146	0.0077	0.0238	0.1109	0.3407	0.3632
MOZ	-0.0595	0.0045	0.0187	0.1076	-1.772	0.0314
NAM	0.0344	0.0037	0.0158	0.1099	1.1213	0.1251
SYC	0.0025	0.0040	0.0131	0.1111	0.0800	0.4801
ZAF	-0.0518	0.0017	0.0129	0.1084	-2.334	0.0094
SWZ	0.0972	0.0061	0.0228	0.1017	2.5073	0.0054
TZA	-0.0389	0.0037	0.0163	0.1096	-1.271	0.0885
ZMB	-0.0422	0.0060	0.0158	0.1093	-1.131	0.1251
ZWE	0.0055	0.0028	0.0127	0.1111	-0.203	0.4013
DRC	-0.0556	0.0026	0.0132	0.1080	-2.129	0.0154

Source: computed from sample data

The figures in bold in Table 2 above, show significant p-values at 5 percent level of significance. The finding in this section asserts that ten out of fifteen SADC countries exhibit symmetry in the distribution of real log GDP data (business cycles) for the full period (1970-2010). As reported in Table 3, when dividing the time series into subsequent window periods of decades, the symmetry further strengthens and the number of countries with symmetrical business cycles increases.

Table: 3 Summary results of Triples test for SADC countries for the full period (1970-2010) and subsequent window periods

Country code	Full Period	'70s-'80	'80s-'90	'90s-2000s
AGO	Symmetric	Symmetric	Symmetric	Symmetric
LSO	Symmetric	Symmetric	Symmetric	Symmetric
BWA	Symmetric	Asymmetric	Symmetric	Symmetric
MDG	Symmetric	Symmetric	Symmetric	Symmetric
MWI	Asymmetric	Symmetric	Symmetric	Symmetric
MUS	Symmetric	Symmetric	Symmetric	Symmetric
MOZ	Symmetric	Asymmetric	Symmetric	Symmetric
NAM	Symmetric	Symmetric	Symmetric	Symmetric
SYC	Symmetric	Symmetric	Symmetric	Symmetric
ZAF	Asymmetric	Symmetric	Symmetric	Symmetric
SWZ	Asymmetric	Symmetric	Symmetric	Symmetric

TZA	Symmetric	Symmetric	Asymmetric	Symmetric
ZMB	Symmetric	Symmetric	Symmetric	Asymmetric
ZWE	Symmetric	Symmetric	Symmetric	Symmetric
DRC	Asymmetric	Symmetric	Symmetric	Symmetric

Source: computed from sample data

The results obtained Table 2 and 3 suggest that the majority of SADC countries are good candidates to form the envisaged monetary union in the region, had symmetrical business cycles been the only OCA criteria to be fulfilled. However, having symmetrical business cycles does not necessarily mean that the cycles move together. Having a single currency and monetary policy requires fulfilment of the additional criteria toward OCA in addition to business cycles synchronisation. In the next section we explore this issue.

Results From Bilateral Co-Movements Tests

The intensity of co-movements in real GDP across SADC countries is measured by the coefficient of determination. The value of the coefficient of determination lies between zero and one; when its value is higher than the average value of 0.5 it implies that there is a higher degree of co-movement between countries under study. In other words, a value higher than 0.5 indicate that member countries' business cycle exhibit synchronisation. The coefficients of determination reported in Table 4 are obtained by using equation (16) in the methodology section. Unlike the correlation coefficients, coefficients of determination are additive. The regional mean of the determination coefficients is 0.04 with a standard deviation of 0.06. There seems to be a lack of co-movement in logs of real GDPs for SADC countries. Seychelles, Namibia, Madagascar, Mauritius, Malawi, and Botswana have average coefficients of determination below the regional mean; the rest of the SADC countries have average coefficients of determination above the regional mean. However, this value does not confirm that those countries can form any sensible monetary union in near future. This result is in line with the findings by Carmignani (2010) for CEMAC countries. In his study of CEMAC countries the corrected concordance index is barely above zero, which shows a lack of concordance of the cyclical phases across CEMAC countries (Carmignani, 2010).

The results reported in Table 5 are computed by using equation (17) in the methodology section by taking the R^2 values from Table 4. Results in the column 2 of Table 5 are computed by the summation of the R^2 of SADC country 'i' with the rest of the countries included in the sample minus one (i.e. R^2 equals to one when country 'i' regressed with its own real GDP), after regressing the log GDP of country 'i' with each with that of the other countries in the sample individually. The values in column three are computed in the same way as those in column two, except that values in column three are computed using the summation of the R^2 of SADC country 'i' with the rest of non-SADC countries minus one.

Column 4 reports the relative intensity of SADC country 'i' with the rest of SADC member countries by dividing entries in column three by respective entries in column two (see equation 17). By dividing the sum of the R^2 of all SADC-to-SADC country regressions, by the sum of all SADC-to-non-SADC countries gives the relative intensity of co-movement. A value of one means that the strength of the co-movement of a SADC country relative to the rest of SADC countries is just as strong as the strength of the co-movement of a SADC country relative to all non-SADC countries. If the value in column 4 is > 1 , it means that the SADC country's business cycles co-move more closely with other SADC countries. Conversely, if the value in column 4 < 1 , the SADC country's business cycles co-moves more closely with non-SADC countries (Non-SADC trade partners) compared to SADC countries.

As suggested by Carmignani (2010), countries must strengthen policy harmonisation and political connectivity in order to activate the channels through which business cycles can become more synchronised and hence maximize the benefits from the envisaged monetary integration in the region. This fact is evident from the result shown in Table 5 below that compare the relative intensity indexes of co-movement in the business cycles of pairs of *SADC-SADC* versus *SADC-Trade Partner* countries. Among SADC countries; Mozambique,

Zimbabwe, Zambia, Seychelles, Swaziland, Tanzania, Mauritius, and DRC show a relatively strong intensity in the co-movement of real GDP compared to the rest of SADC members (see the last column of Table 5). Note that the values in bold in Table 5 show countries with strong relative intensity of co-movement with SADC members. However, nearly half of the member states have more significant co-movement with their major trade partner countries than with member states.

Table 4: Coefficients of determination as a measure of cyclical co-movements

Code	AGO	LSO	BWA	MDG	MWI	MRT	SYC	MOZ	NAM	ZAF	SWZ	TZA	ZMB	ZWE	DRC
AGO	1														
LSO	0.002	1													
BWA	0.048	0.001	1												
MDG	0.000	0.000	0.001	1											
MWI	0.058	0.002	0.005	0.040	1										
MRT	0.010	0.082	0.001	0.046	0.007	1									
SYC	0.005	0.214	0.002	0.028	0.001	0.028	1								
MOZ	0.038	0.024	0.019	0.005	0.008	0.059	0.031	1							
NAM	0.044	0.059	0.034	0.000	0.004	0.045	0.004	0.003	1						
ZAF	0.228	0.019	0.030	0.024	0.001	0.111	0.055	0.218	0.037	1					
SWZ	0.021	0.101	0.036	0.039	0.005	0.119	0.016	0.049	0.104	0.135	1				
TZA	0.029	0.052	0.023	0.000	0.110	0.021	0.000	0.117	0.078	0.028	0.025	1			
ZMB	0.001	0.003	0.012	0.002	0.064	0.032	0.023	0.146	0.000	0.122	0.047	0.116	1		
ZWE	0.073	0.049	0.007	0.008	0.033	0.008	0.063	0.261	0.008	0.110	0.024	0.011	0.063	1	
DRC	0.266	0.001	0.037	0.000	0.001	0.002	0.020	0.058	0.046	0.189	0.009	0.002	0.004	0.071	1

Source: computed from sample data

Table 5: Comparison of SADC countries' ratio of relative intensity of co-movements (RICM) and that of major trade partners

Country Code	Total all	SADC all	SADC relative intensity
AGO	2.922757	0.820042	0.389992
LSO	1.326669	0.534191	0.674077
BWA	1.881879	0.254965	0.156717
MDG	1.498395	0.148454	0.109971
MWI	0.712644	0.332029	0.872347
MUS	0.58334	0.381326	1.887621
MOZ	1.33429	1.101481	4.731282
NAM	1.194135	0.433222	0.569344
SYC	0.857648	0.466165	1.190766
ZAF	3.50578	1.197229	0.518606
SWZ	0.978067	0.611418	1.667587
TZA	1.068255	0.630444	1.43999
ZMB	0.901105	0.608246	2.076927
ZWE	1.319048	0.965	2.725618
DRC	1.410106	0.706682	1.00463

Source: computed from sample data

CONCLUSION

The overall results confirm that some SADC member countries are potentially capable of forming a monetary union in the region based on OCA theory. Ten out of fifteen SADC countries exhibit symmetry in the distribution of their business cycles (real log GDP data) for the period (1970-2010). When dividing the time-series into decades, it is shown that symmetry strengthens among member countries. When we consider evidence from bilateral co-movements using the coefficients of determination; the result shows a general lack of co-movements in the business cycles of SADC countries. Mozambique, Zimbabwe, Zambia, Seychelles, Tanzania, Mauritius, and DRC, however, have relatively strong intensities in the co-movement of their business cycles when compared with the rest of SADC members. These findings confirm that there is no sufficient macroeconomic convergence among all member states for the entry into the monetary union.

This implies that a common monetary policy will not be optimal for all countries in the region, especially in the short run. These findings are in line with that of Carmignani (2009, P.39) in his study for CEMAC countries and other studies reviewed in this paper.

Many studies explicitly show that among the EMU countries, Greece and the rest of the PIIGS displayed patterns in the level of economic activity that are considerably different to developments in the other economies in the region. The crisis in the Euro zone could have been avoided if the PIIGS had complied with the traditional OCA criteria prior to accession to the EMU. However, when we infer lessons from EMU in the context of SADC in line with structural asymmetry of business cycles we should also note that there are other factors other than the lack of cyclical convergence within the Euro area. For example, clash between economic and political forces within the euro area and sovereign debt crisis. Others also argue that the German's export-led growth strategy as a "beggar-thy-neighbour" strategy that generated large trade and current account deficits throughout the euro zone in the 2000s.

Lessons that SADC could learn from experiences elsewhere is to strengthen policy harmonisation and coordination for business cycles to become more synchronised as a precondition to monetary union. Without doing so, SADC countries face the same risk as the PIGGS, having to contend with a fixed exchange rate and monetary policy with which to defend their own economies against adverse external shocks.

Recommended future research in the SADC region that would supplement the findings of this study includes testing the Generalized Purchasing Power Parity (G-PPP) hypothesis. It is also important to investigate the economic, political, and institutional prerequisites for SADC countries to gain an understanding of the factors that would determine the speed of integration in the region.

REFERENCES

- Alesina, A. Barro, R. & Tenreyro, S. (2002). Optimum Currency Areas. *NBER/Macroeconomics Annual*, 17, 300-345.
- Bayoumi, T. (1997). Financial Integration & Real Activity. Studies in International Trade Policy. Ann Arbor: University of Michigan Press.
- Bayoumi, T. & Eichengreen, B. (1993). Shocking Aspects of European Monetary Integration. In F.TORRES & F.GIAVAZZI (eds.). Adjustment & growth in the European monetary union, London: CEPR and Cambridge: Cambridge University Press.
- Bayoumi, T. & Eichengreen, B. (1994). One Money or Many? Analyzing the Prospects for Monetary Unification in Various Parts of the World. *Princeton Studies in International Finance No.76*, Princeton NJ, Princeton University.
- Bayoumi, T. & Ostry, J.D. (1997). Macroeconomic Shocks & Trade Flows within Sub-Saharan Africa: Implications for Optimum Currency Arrangements. *Journal of African Economies*, 6 (3), 412-444

- Baxter, M. & King R. (1999). Measuring business cycles: Approximate Band-pass Filters. *The Review of Economics and Statistics*, 81(4), 575-593.
- Belle, M. (2010). Regional Economic Integration in SADC: Progress, Prospects and Statistical Issue for Monetary Union. In *Irving Fisher Committee on Central Bank Statistics IFC Bulletin No 32*. Bank for International Settlements. Basel, Switzerland. ISBN 92-9131-812-4.
- Boone, L. & Maurel.M. (1998). Economic Convergence of the CEECs with the EU. *Discussion Paper No. 2018*. CEPR, London.
- Böwer, U. & Catherine Guillemineau,(2006) *Determinants of Business Cycle Synchronization across Euro-zone Countries*, ECB Working Paper No 587.
- Buigut, S. (2006). Monetary integration initiatives in Eastern and Southern Africa: Sorting the overlapping membership. *International Finance*, 9(3), 295-315.
- BUIGUT, S. & VALEV, N. (2006). Eastern and Southern Africa Monetary Integration: A Structural Vector Autoregression Analysis. *Review of Development Economics*, 10(4), 586-603.
- Buiter, W.H., Giancarlo, C. & Paolo, P. (1998). *Financial Markets & European Monetary Cooperation: The Lessons of the 1992-93 Exchange Rate Mechanism Crisis*. Cambridge, UK & New York, NY: Cambridge University Press.
- Carmignani, F. (2010). Endogenous Optimal Currency Areas: The Case of the Central African Economic & Monetary Community. *Journal of African Economies*, Oxford University Press, 19(1), 25-51.
- Carrer, C. (2004). African regional agreements: Impacts on trade with or without currency unions. *Journal of African Economies*, 13(2), 199-239.
- Corsetti, G. (2008). A Modern Reconsideration of the Theory of Optimal Currency Areas. *Working Paper ECO 2008/12*. European University Institute. Department of Economics. ISSSN 1725-6704. Budia, Fiesolana, Italy. Accessed from: <http://www.eui.eu>. Accessed on: 2012-06-12.
- Corsetti, G. & Pesenti, P. (2002). Self-validating Optimum Currency Areas. *Working paper 8783*. National Bureau of Economic Research, Cambridge. Accessed from: <http://www.nber/papers/w8783>. Accessed on: 2012-06-06.
- Crowley, P., & Lee, J. (2005), Decomposing the Co-Movement of the Business Cycle: A Time-Frequency Analysis of Growth Cycles in the Euro Area. *Bank of Finl& discussion papers 12/2005*.
- Davis, C. & Quade.D.(1978). U-statistics for skewness or symmetry. *Communications of Statistics-Theory & Methods*, A7 (5), 413-418.
- Darvas Z. (2012). The Euro Crisis: Ten Roots but Fewer Solutions. *Policy Contribution, 775* Bruegel.
- Dowd, K. & Greenaway D. (1993). Currency Competition, Network Externalities & Switching Costs: Towards an Alternative View of Optimum Currency Areas. *Economic Journal* 102, 1180-1189.
- Economic Commission for Africa (ECA). (2010). Assessing Regional Integration in Africa IV: Enhancing Intra-African Trade. United Nations Economic Commission for Africa, Addis Ababa, Ethiopia.
- Eichengreen, B. (1990). One Money for Europe? Lessons from the US Currency Union. *Economic Policy* 10, 117-187.
- Eichengreen, B. (1992). Should the Maastricht treaty be saved? *Princeton Studies in International Finance* No.74, Princeton NJ, Princeton University.

- Fidrmuc J. & Korhonen I. (2006). Meta-analysis of the Business Cycle Correlation Between the Euro Area & the CEECs. *Journal of Comparative Economics* 34: 518–537, Elsevier Inc.
- Frankel, J. & Rose, A. (1998). The Endogeneity of the Optimum Currency Area Criteria. *Economic Journal*, 108(449), 1009-1025.
- Eubank, R. Lariccia, V. & Rosenstein, R. (1992). Testing Symmetry about an Unknown Median, Via Linear Rank Procedures. *Non Parametric Statistics*, 1, 301-311.
- Gouveia, S., & Correia, L. (2008). Business Cycle Synchronization in the Euro Area: The Case of Small Countries. *International Economics & Economic Policy*, 5(1), 103–121.
- Grandeas, M. (2003). Macroeconomic Convergence in Southern Africa: The Rand Zone Experience. *OECD Development Centre Working Papers*, 231.
- Granger, C & Anderson, A. (1978). An Introduction to Bilinear Time Series Models, Gottingen: Van Den Hoek & Ruprecht (Ed).
- Guillaume, D & Stasavage, D. (1999). Making & Breaking Monetary Policy Rules: The Experience of African Countries. *Working Paper*, 99(2). Center for the study of African Economies, University of Oxford,
- Ingram, J. (1973). The case for European monetary integration. *Princeton Essays in International Finance* No.98, Princeton NJ, Princeton University.
- De Haan J., Robert I., & Richard J. (2008). Will Business Cycles in the Euro Area Converge? A Critical Survey of Empirical Research. *Journal of Economic Surveys*: 22: 2, pp. 234–273. Blackwell Publishing Ltd
- Jefferis, K. (2007). The Process of Monetary Integration in the SADC Region. *Journal of South African Studies*, 33(1), 83-106.
- Kenen, P. & Meade, E. (2008). Regional Monetary Integration. Cambridge University Press, Cambridge, UK.
- Khamfula, Y. & Huizinga, H. (2004). The South African Development Community: Suitable for a Monetary Union? *Journal of Development Economics*, 73(2), 699-714.
- Jovanovich, M.N. (2006). The Economics of International Integration. Cheltenham, UK & Northampton, MA, USA. Edward Elgar.
- Kenen, P. (1969). The Theory of Optimum Currency Areas: An Eclectic View. Reprinted in: *Exchange Rates & the Monetary System: Selected Essays of Peter B. Kenen*, Aldershot. Elgar. (1994).
- Krugman, P. (1993). Lessons of Massachusetts for EMU. In: Francisco T., & Francesco G. (Eds.), Adjustment and Growth in the European Monetary Union, Cambridge, UK: Cambridge University Press.
- Lehwald S. (2012). Has the Euro Changed Business Cycle Synchronization? Evidence from the Core and the Periphery. IFO Working Paper No. 122 IFO Institute – Leibniz Institute for Economic Research at the University of Munich Poschingerstr. 581679 Munich, Germany. Downloaded from: www.cesifo-group.de. Accessed on: 2012-09-12.
- Martin F.M. & Waller C. J. Sovereign Debt: A Modern Greek Tragedy. Federal Reserve Bank of St. Louis *Review*, 94(5), pp. 321-39.
- Masson, P. (2006). Currency Unions in Africa: Is The Trade Effect Substantial Enough to Justify their Formation? *Journal of the World Economy*.
- Masson, P., & Pattillo, C. (2005). A Single Currency Area for Africa? *Finance & Development*, 41(4), 9-15.

- McKinnon, R. (1963). Optimum Currency Areas. *American Economic Review* 53, September.
- Melitz, J. (1996). The Theory of Optimum Currency Areas, Trade Adjustment, and Trade. *Open Economies Review* 7(2), April.
- Mendonça A., João S., & José P.(2011). The Shrinking Endogeneity of Optimum Currency Areas Criteria: Evidence from the European Monetary Union-A Beta Regression Approach. *Economics Letters*. Elsevier.
- Mongelli F. P. (2013). The Mutating Euro Area Crisis is the Balance Between “Sceptics” And “Advocates” Shifting? European Central Bank *Occasional Paper Series, No 144*.
- Mundell, R. (1961). A Theory of Optimum Currency Areas. *American Economic Review*, 51, September.
- Randles R.H., Michael A.F., George E.P., and Douglas, A.W. (1980). An Asymptotically Distribution Free Test for Symmetry versus Asymmetry. [Online] *Journal of the American Statistical Association*, 75(396), 168-172. Available at <http://www.jstor.org/stable/2287406> [Accessed: 21/06/2012]
- Rockoff, H. (2000). “How Long Did It Take The United States to Become an Optimal Currency Area?” *NBER Working Paper # HO124*.
- Razzak.W.A. (2001). Business Cycle Asymmetries: International Evidence. [Online] *Review of Economic Dynamics*, 4,230-243. Available at <http://www.ideallibrary.com> [Accessed: 21/06/2012].
- Tapsoba, S. (2009). Trade Intensity and Business Cycle Synchronicity in Africa. *Journal of African Economies*, Oxford University Press, 18(2), 287-318.
- Panteladis I. & Tsiapa M. (2011). Business Cycle Synchronisation in the Greek Regions. *Discussion Paper Series, 17(3): 51-68*. National Centre for Social Research, Athens Department of Planning & Regional Development University of Thessaly.
- Tavlas, G. (2009). The benefits & costs of monetary union in Southern Africa: A Critical Survey of the Literature. *Journal of Economic Surveys*, Wiley Blackwell, 23(1), 1-43.
- OECD. (2011). Fact Book: Economic, Environmental & Social Statistics -ISBN978-92-64-11150-9.
- Wang, J., Masha, I., Shirono, K., & Harris, L. 2006. The Common Monetary Area in Southern Africa: Shocks, Adjustment, & Policy Challenges. *IMF Working Paper, no. 07/158*.
- Weeks J. (2013). Euro Crises and Euro Scams: Trade Not Debt and Deficits Tell the Tale. [Forthcoming, in *Review of Political Economy*].
- Verbrugge, R. (1977). Investigating Cyclical Asymmetries. *Studies in Nonlinear Dynamics & Econometrics* 2(1), 15-22.

TIME SERIES ANALYSIS FOR CRISIS TIMES: A CASE STUDY WITH THE IBOVESPA INDEX (1999-2012)

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ABSTRACT

Kim et al. (2011) state that it appears to be a consensus that the recent instability in global financial markets may be attributable in part to the failure of financial modeling: standard risk models have failed to properly assess the risks associated with large adverse stock price behavior. Their empirical evidences indicate that time series modeled with a framework of stable and tempered stable innovations show better predictive power in measuring market risk compared to standard models based on the standard distribution assumption. This approach was tested for a Brazilian case. The MLE (Maximum Likelihood Estimation) tests – applied to the daily returns of the closing prices of the IBOVESPA stock exchange index, from January, 1999 to April, 2012, covering some high volatility periods – show that GARCH models that adopt Alpha-Stable or Tempered Stable distributions are a better fit for financial time series that cover turbulent periods.

INTRODUCTION

The forecast activity of financial instruments is essential to risk management and portfolio allocation. The debate between the financial sector and its regulators comprehend the evaluation if the sophisticated mathematical and statistical tools that have been used for risk management and the evaluation of complex financial instruments played a crucial role in the recent global financial crisis. The risk models such as the value at risk (VaR) and “black box” models used by the institutional investors and regulated financial entities have been blamed for the bad forecast of the financial assets - see Turner (2009) and Sheedy (2009). This is the context to discuss a model of distribution of returns that is able to explain the high volatility periods.

The volatility cluster effect may be captured by the heteroscedastic autoregressive conditional models (ARCH) and the general ARCH models (GARCH) and models formulated by Engle (1982) and Bollerslev (1986). However, there are plenty empirical evidences showing that GARCH models based on the normal distribution do not perform well in turbulent times. Some examples were given by Kim et al (2011), for the S&P/500 stock exchange index, in periods of time that included the black Monday crisis (October 19, 1987), and the recent global economic crisis, this later linked to the mortgages subprime collapse in 2007 and the Lehman Brothers failure in September, 2008.

Other several studies show that revenues arising from financial assets have well defined leptokurtosis and asymmetry patterns that cannot be captured by the assumption of normality. The non-normality assumption was recently regarded by Sorwar and Dowd (2010), Fajardo and Farias (2010), and by Bedendo et al (2010), to investigate the options pricing verification models. The extreme values theory (EVT) was applied to measure the financial risk and to capture the extreme events that cannot be described by the normal distribution, as stated by Neftci (2000), Bali (2003) and Gupta and Liang (2005). Despite a good performance, the EVT approach cannot be applied in a no-arbitrage scenario, since extreme values distributions and generalized distributions by Pareto (as the t-Student distributions) do not lead to semi-martingale procedures. Therefore, it is impossible to find a martingale measure equivalent for options pricing.

Introducing the alpha-stable and the Tempered stable models

Kim et al. (2011) evaluated alpha-stable and Tempered Stable (TS) models and found out that there is a superior prediction power in relation to other models that are widely used by the industries. Those models were applied for the daily returns series of the S&P 500 during highly volatile periods. The empirical evidences indicated that time series models with alpha-stable or tempered stable innovation have better predictive power of the market risk in comparison to the standard models based on the normal distribution assumption. Instead, time series models based on normal innovation do not offer a reliable prediction even if they represent volatility groupings. Time series models based on t-Student innovations were also empirically refused.

Due to the tail properties of the TS distributions, Kim et al. (2011) showed that the quantity of necessary capital by a risk manager who uses a TS-based model is smaller than the one used by other models. In contrast with t-student or EVT innovation models, the CTS (Classical Tempered Stable) assumption allows a good market model for prices options. Kim et al (2011) chose five recent turbulent periods: 1987(Black Monday), 1997(Asian Tigers' crisis), 1998(Russian Default), 2000(Dotcom Collapse) and 2008(USA Financial Crisis). Then, analyzed the VaR approach based on different distribution assumptions and performed the VaR backtest considering the latest four year- log-returns for the S&P/500. Based on the likelihood reason test by Christoffersen (1998), the models normally distributed were refused.

Table1: Recent crisis and the S&P 500 daily returns

Crash	Day	Returns (%)
Black Monday	19/10/1987	-23
Asian Crisis	27/10/1997	-7
Russian Collapse	31/10/1998	-7
Dot.com Crisis	14/04/2000	-6
Global 2007 Crisis-	29/09/2009	-9

Source: Kim et al (2011).

Considering the results and the last table, the probability of a new Black Monday, based on the three normal models from the related article, is considerably low compared with the proposed stable models. Conversely, the average times of occurrences based on the three normal models is very high. Each crash occur every $7,966 \times 10^{141}$ years in the normal model of constant volatility, $2,554 \times 10^{39}$ years in the GARCH normal density model and $2,904 \times 10^{39}$ years in the ARMA-GARCH normal density model. These values are bigger than the age of the Universe. In real life, this fall would be expected at each 30 to 50 year - interval. The authors conclude that models based on normal distributions are not realistic.

The Kim's et al approach (2011) was chosen for testing the daily returns series of the closing prices of the IBOVESPA Brazilian stock exchange Index - from January, 1999 to April, 2012 - verifying if it fits best to alpha-stable and/or Classical Tempered Stable densities in comparison with normal densities - and t-student in future tests. In the chosen time frame period, several unconditional volatility levels can be explained by several politic-economic scenarios. Among them, the most important where the mid-2002 confidence crisis in the eve of the Presidential Elections (October 27, 2002) when Luís Inácio da Silva (Lula) was elected for his first term as Brazilian President; and the international financial crisis that began in 2007, specially in 2008 (a high 5.81% volatility level between Sept 8, 2008 and November 21, 2008).

The coming sections comprehend a further bibliographical review (section 2) - introducing the alpha-stable and tempered stable distributions - the methodologies (section 3) and the results (section 4). The conclusion section (section 5) has a paragraph suggesting a possible alternative to the BIS (Bank for International Settlements) recommendation for risk modeling, in a recent Basel III Agreement Document (2011).

FURTHER REVIEW

It is clear from previous works, like Valls & Almeida (2000), that the chosen series - the daily returns of the closing prices of the IBOVESPA Stock Exchange Index - presents volatility clusters and ARCH effects. For

a review of the ARCH and GARCH effects, consider Engle (1982) and Bollerslev (1986). The existence of volatility clusters suggests either an approach under the viewpoint of changes in volatility regimes or an approach under the standpoint of volatility leaps. For the changes in volatility regimes, see Hamilton (1990) with the SW (Switching Regimes) models review. Referring to leaps, a quick review of the Lévy processes literature started from the Kim et al (2011) review. A previous identification of the unconditional volatility levels is considered, following Inclán and Tiao (1994).

Diffusion problems and leaps

A way to deal with diffusion problem is the use of Semimartingales, but the structure of these procedures is very complex. The alternative is the use of Lévy, additive processes (non homogeneous processes) or the use of models of stochastic volatility with leaps (Ornstein-Uhlenbeck). Following Kim's et al approach (2011), a distribution based on Lévy's processes is tested, which allows the modeling without resorting to much abstraction.

Mandelbrot (1963) was pioneer on the use of stable distributions (or alpha-stable) to model skewness distributions and fat tails. In a general sense, the alpha-stable distributions family is a varied class which includes as subclasses the following distributions: the Gaussian, Cauchy's and Lévy's distribution (or Gaussian or Pearson V). The Lévy's continuous stochastic procedure has stationary and independent increments. Using the notation $X \sim \text{Lévy}(y, o, v)$ for the Lévy's triplet, y is the drift, o is the diffusion component and v is the expected number of leap in the $[0,1]$ interval in the Lévy's process.

Alpha -stable Distributions

The Alpha-stable distributions can model the negative skewness and the excess of kurtosis that characterize, for instance, the returns of the hedge funds. They became popular in the 1960's, but the general interest has decreased since then, due not only to mathematical complexity and the huge computing power necessary to implement models, but also because of the success of the gaussian and Black-Scholes (1973) - Merton's approach applied to the finance theory that was developed simultaneously.

Tempered Stable Distributions

The tempered - stable process, also known as Lévy's truncated flight, combines alpha-stable tendencies with gaussian tendencies. In a short time interval it nears an alpha-stable process while in a long time interval, it approaches a brownian movement. Its is considered a general and robust class of tempered-stable distributions and an identifiable parameterization according to Rachev et al. (2007), Scherer et al. (2009) and Kim et al. (2011). These representations exhibit alpha-stable and gaussian trends in tempered stable procedures, therefore they offer a probabilistic trait and they may also be used for simulations.

Changes of Volatility Regimes

In order to verify if there are levels of unconditional volatility, the determination of the discrete changes in the unconditional variance may be made with the ICSS-Iterative Cumulative Sum of Squares – the Inclán and Tiao (1994) algorithm.

Switching Regimes

A great part of the bibliography that deals with regime changes (mean and/or volatility) has Hamilton (1990) – and other of his works - as a main source. Hamilton utilizes the EM algorithm to obtain the maximum likelihood estimation (MLE) of the procedures parameters subject to discrete changes in their self-regression parameters. The premise of the model is that many of the movements in the assets prices appear from specific identifiable events. The author considers parameters such as level, variance regression or the proper dynamics of a self-regression - being subject to occasional and discrete changes. The probability law that governs such changes is openly declared and it is supposed that these changes exhibit a proper dynamic conduct. Cai (1994) conclusions recommends SWGARCH models in place of SWARCH models.

The SWGARCH models combine GARCH with regime changes. For Haas et al (2004), these models offer a direct estimate of the maximum likelihood; they are analytically treatable and allow a procedural breakdown of the conditional variance. These models were applied by Valls and Almeida (2000) to the IBOVESPA stock exchange index and by Haas et al (2004) for several currencies such as the Yen, Sterling Pound and the Singapore dollar. The general model for the variance, including the asymmetry effect, may be defined by:

Equation 1: Variance equation for SWGARCH (k,p,q)-L models, k for level and L for Leverage

$$h_t = \alpha_0 + \sum_{i=1}^q \alpha_i r_{t-1}^2 + \sum_{j=1}^p \beta_j h_{t-1} + \xi d_{t-1} r_{t-1}^2$$

METHODOLOGY

Methodology for identifying sudden changes in Variance

The determination of the discrete changes in the unconditional variance is identified with the ICSS (Interactive Cumulative Sum of Squares) algorithm, developed by Inclán and Tiao (1994).

GARCH and SWGARCH Models

The SWGARCH models combine GARCH with regime changes. Based on the models from Haas et al (2004), it was possible to offer a direct estimate of the maximum likelihood function.

Stable Distributions

The alpha-stable algorithms source code came from Veillette (2010). An alpha-stable distribution is calculated: to obtain initial parameters, using the STBLFIT function.

Classical Tempered Stable Distributions

The Tempered Stable distributions do not possess a closed form for their probability density. Instead, they are defined by their characteristic function, according to Kim et al (2011). The characteristic function **u** is calculated based on the FFT (Fast Fourier Transform), from Scherer et al (2009) and Menn and Rachev (2006).

Choice of the algorithms

The algorithms were obtained and adapted from five sources, summarized in the next table:

Table 2: Algorithms utilized/evaluated for this text

OPERATION	ALGORITHM	SOURCE
Unconditional Volatility Level Change	ICSS	Inclán and Tiao (1994)
ARCH/GARCH effects	GARCH	Haas (2004) modified.
ARCH/GARCH+ Volatility Level Change	SWGARCH	Haas (2004) modified.
α -stable Distribution	α -stable	Mark Veillet modified.
Classical Tempered Stable Distribution	pdf CTS with GARCH/SWGARCH	Scherer et al(2009)+ Kim et al (2011) developed

TESTS

The closing prices of the IBOVESPA stock exchange daily index were collected from the time series page of Banco Central do Brasil's website, from January 4, 1999 to April 27, 2012. The series presents heteroscedasticity, confirmed by the Engle's test. The IBOVESPA daily return of the daily closing prices is given by:

Equation 2: IBOVESPA daily returns series: $r_t = Ln(IBOVESPA_t / IBOVESPA_{t-1})$

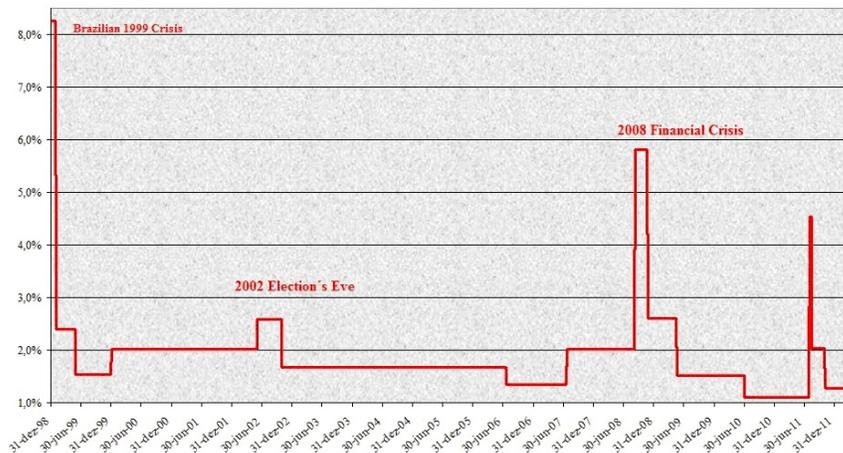
The next table and figure illustrate the results from the ICSS algorithm, identifying the levels of unconditional volatility.

Table 3 and Figure: IBOVESPA's volatility levels from the daily returns (Jan., 1999 – Apr., 2012).

Period	Begin	End	Level	Working Days	Period	Begin	End	Level	Working Days
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1	01/04/9	01/29/9	8.25%	25	9	09/08/0	11/21/0	5.81%	74
2	9	9			8	8	8		
2	02/01/9	05/26/9	2.40%	114	10	11/24/0	05/15/0	2.60%	172
3	9	9			8	9	9		
3	05/27/9	12/31/9	1.53%	218	11	05/18/0	06/29/1	1.51%	407
4	9	9			9	0	0		
4	01/03/0	06/04/0	2.02%	883	12	06/30/1	07/29/1	1.11%	394
5	0	2			0	1	1		
5	06/05/0	10/29/0	2.59%	146	13	08/01/1	08/10/1	4.53%	9
6	2	2			1	1	1		
6	10/30/0	07/19/0	1.68%	1358	14	08/11/1	10/31/1	2.04%	81
7	2	6			1	1	1		
7	07/20/0	07/20/0	1.34%	365	15	11/01/1	04/26/1	1.27%	177
8	6	7			1	2			
8	07/23/0	09/05/0	2.01%	410					
	7	8							

Ibovespa January 1999- April 2012: Unconditional Volatility Levels



The **ratio** among volatility levels is significant. The **ratio** between the lowest level (1.11%, between 06/30/2010 to 07/29/2011) and the highest level (5.81%, between 09/08/2008 and 11/21/2008) is 5.24.

Initial Tests with SWGARCH

Initially, the IBOVESPA series was tested with an AR Model (1) –SWGARCH (1,1) with two and three volatility levels and normal density, optimizing with the MLE method (Maximum Likelihood Estimation) in a Monte Carlo simulation, testing one million parameter combinations. The test with two levels of volatility gave significant values for the maximum likelihood estimation.

Alpha- Stable Distribution

The function STBLFIT was applied, where α , β , δ and γ stand for the characteristic parameter (tail), skewness, scale (equivalent to variance) and location (equivalent to mean). When fitting a normal distribution, the tail value is 2, the skewness value is zero, the scale is 1 and the mean is zero.

TESTING WITH GARCH AND SWGARCH

Some innovations models were tested, and the results for five models are reported: ARMA (1, 1)-SWGARCH (1, 1) with normal density, ARMA (1, 1)-GARCH (1, 1) with normal alpha-stable density, ARMA (1, 1)-SWGARCH (1, 1) with CTS density, ARMA (1, 1)-GARCH (1, 1) with alpha-stable density and ARMA (1, 1)-GARCH (1, 1) with CTS. Each round of simulations comprehended at least ten Monte Carlo Simulations. Each Monte Carlo simulation lasted about 35 hours, since the probability density of stable distributions was calculated from its characteristic function at each random parameter generation.

SWGARCH Tests: First Round of Simulations

Table 5: Differences among models Five Innovations Models

Parameter	Value	Parameter	Value
C	0.001	P1	0.415
AR	0.728	P2	0.428
MA	0.753	LL SWGARCH_alpha_STABLE	8046.662
V1	0.995	LL SWGARCH_NORMAL	7522.082
V2	0.833	LL SWGARCH_CTS	23117.972
AC1 / G1	0.976 / 0.750	LL GARCH_alpha_STABLE	5661.507
AC2 / G2	0.884 / 0.765	LL GARCH_alpha_STABLE CTS	23117.972

Where V1 and V2 are the volatility levels, and P1 and P2 are the probabilities to stay in the same volatility level among consecutive observations; C, AR and MA are the ARMA parameters; G1, G2, AC1, AC2 stands for the GARCH/ARCH parameters; LL stands for Log Likelihood (MLE method). The best models were the ARMA (1, 1)-GARCH (1, 1)-CTS model and the ARMA (1,1)-SWGARCH-CTS model.

SWGARCH Tests: Second Round of Simulations

The second round consisted of another group of simulations, **only with the stable models**. V1 and V2 are the volatility levels, and P1 and P2 are the probabilities to stay in the same volatility level among consecutive observations; G1, G2, AC1, AC2 stands for the GARCH/ARCH parameters; SWG STABLE, SWG CTS, GARCH STBL and GARCH CTS stands for the Log Likelihood of SWGARCH for alpha-stable and CTS distributions. The best model was the ARMA (1, 1)-GARCH (1, 1)-CTS model, slightly superior to the ARMA (1,1)-SWGARCH-CTS model.

Table 6: Simulation with the prevailing CTS-GARCH model slightly superior to the CTS-SWGARCH

V1	V2	G1	G2	AC1	AC2	P1	P2	SWGARCH /STABLE	SWGARCH/ CTS	GARCH /STABLE	GARCH / CTS
0.76%	0.93%	80.71%	79.66%	12.68%	12.83%	7.29%	36.65%	7.037.557	19025.597	5.707.295	19025.901

SWGARCH Tests: Third Round of Simulations

In this round – simulating **only the stable models** – the transition probability between two markovian states is equal to 50% and also the ARMA (1, 1) parameters are fixed. The best model was the ARMA (1, 1)-GARCH (1,1)-CTS model, slightly superior to the ARMA(1,1)-SWGARCH-CTS model. The ARMA parameters are (0.0006641; 0.72791; 0.7533); V1 and V2 stands for the unconditional volatility levels; SWGARCH_STBL, SWGARCH_NORMAL, SWGARCH_CTS, GARCH_STBL and GARCH_CTS stands for Log Likelihood for SWGARCH with alpha-Stable, normal or CTS distributions and Log Likelihood for GARCH alpha-Stable or CTS distributions.

Table 7: SWGARCH with transition probability set to 50%

V1	V2	SWGARCH /STBL	SWGARCH /NORMAL	SWGARCH /CTS	GARCH/ STBL	GARCH/ CTS
3.15%	4.45%	17396.41	7913.55	18227.87	6740.66	18135.91
1.70%	5.98%	5988.31	2096.80	17888.25	18550.80	17954.55
1.42%	6.64%	8817.29	4346.05	21482.31	6971.74	19685.46
1.13%	6.52%	8390.14	3327.58	20540.69	12719.43	21702.76

CONCLUSIONS

The recent instability in global financial markets may be attributable in part to the failure of financial modeling. One of the possible reasons for the weak modeling performance was the assumption of normally or t-student distributed innovations. The considered alternative is the stable innovation approach from Kim et al (2011), combined with SWGARCH models, from Haas et al. (2004).

When analyzing the daily return series of the daily closing prices from the main Brazilian stock exchange index - the IBOVESPA stock index, from January,1999 to April,2012 - the normal innovation was compared with alpha-stable and CTS (Classical Tempered Stable) innovations in a ARMA (1, 1) –GARCH (1, 1) and ARMA (1,1) – SWGARCH (1, 1) models. The highest MLE result occurred with ARMA(1,1)-GARCH(1,1) models with alpha-stable density and ARMA(1,1)-GARCH(1,1)-CTS(Classical Tempered Stable), even superior to the alternatives that adopted two volatility levels, i.e. ARMA(1,1)-SWGARCH(1,1) alpha-stable and ARMA(1,1)-SWGARCH(1,1)-CTS.

The results confirm that a financial time series that covers turbulent periods is better modeled with stable innovations, yet Monte Carlo simulations are considerably more time consuming than equivalent simulations that evaluates only normal or t-student innovations. Another disclaimer appears when creating a time series of daily returns with elements randomly generated by the Monte Carlo Method: the highest MLE is founded with the ARMA (1,1)-SWGARCH-alpha-stable and not with the ARMA(1,1)-SWGARCH-CTS stable distribution, differently from Kim et al (ibid.)

Banking Regulation and Possible Alternative Recommendation for Risk Management

The Basel Agreement III (BIS, 2011) - announced in response to the latest international financial crisis - recommendations suggest that quite different specifications for market risk models can be found in the literature, even though the VaR (Value at Risk) approach prevails as the main alternative. BIS III introduces a stressed value-at-risk - SVaR, a mix of VaR and Stress test - capital requirement based on a continuous 12-month period of significant financial Stress, but keep working with the standard 99% confidence interval (one-tailed), 10-day holding period and the **normal** density. Instead, Kim et al. (2011) recommend the Average Value at Risk (AVaR, a.k.a. CVaR) with **stable** innovations.

Future tests with several other financial time series could confirm that risks analysts may keep the usual VaR approach (or the AVaR), yet with stable densities in place of the usual normal density, as an alternative to the BIS recommended Stressed VaR approach. As Pengelly (2011) stated, the new BIS capital charge based on SVaR is blamed for being intellectually inconsistent and could potentially be troublesome for banks to implement.

REFERENCES

BALI, T. (2003). An Extreme Value Approach To Estimating Volatility And Value At Risk. *Journal Of Business* 76, 83–108.

_____.(2007). A Generalized Extreme Value Approach To Financial Risk Measurement. *Journal Of Money, Credit And Banking*, 39, 1613–1649.

BEDENDO, M., CAMPOLONGO, F., JOOSSENS, E., SAITA, F. (2010). Pricing Multiasset Equity Options: How Relevant Is The Dependence Function? *Journal Of Banking And Finance* 34, 788–801.

BIS. (2011). Basel III: A Global Regulatory Framework For More Resilient Banks And Banking Systems. Basel. Bank For International Settlements.

BLACK, F., SCHOLES, M. (1973). The Pricing Of Options And Corporate Liabilities. *Journal Of Political Economy* 81 (3): 637–654.

- BOLLERSLEV, T. (1986). Generalized Autoregressive Conditional Heteroskedasticity. *Journal Of Econometrics*, Vol. 31, 307–327.
- CAI, I. (1994). A Markov Model Of Switching-Regime ARCH. *Journal Of Business & Economic Statistics*, Vol. 12, July 1994, 309-316.
- CHRISTOFFERSEN, P.F. (1998). Evaluating Interval Forecasts. *International Economic Review*, 39, 841–862.
- DOKOV, S., STOYANOV, S.V., RACHEV, S.T. (2008). Computing Var And Avar Of Skewed-T Distribution. *Journal Of Applied Functional Analysis* 3, 189–208.
- ENGLE, R. (1982). Autoregressive Conditional Heteroskedasticity With Estimates Of The Variance Of United Kingdom Inflation. *Econometrica* 50, 987-1007.
- FAJARDO, J. FARIAS, A. (2010). Derivative Pricing Using Multivariate Affine Generalized Hyperbolic Distributions. *Journal Of Banking And Finance*, 34, 1607–1617.
- GUPTA, A., LIANG, B. (2005). Do Hedge Funds Have Enough Capital? A Value-At-Risk Approach. *Journal Of Financial Economics* 77, 219–253.
- HAAS, M., MITTNIK, S. & PAOLELLA, M. (2004). A New Approach To Markov-Switching GARCH Models. *Journal Of Financial Econometrics*, 2004, Vol. 2, No. 4, 493-530.
- HAMILTON, J.D. (1990). Analysis Of Time Series Subject To Changes In Regime. *Journal Of Econometrics* 45, 39-70, 1990.
- KIM, Y.S., RACHEV, S.T., BIANCHI, M.L., FABOZZI, F.J. (2008). Financial Market Models With Levy Processes And Time-Varying Volatility. *Journal Of Banking And Finance* 32, 1363–1378.
- _____. (2010). Tempered Stable And Tempered Infinitely Divisible GARCH Models. *Journal Of Banking And Finance* 34, 2096-2109.
- _____. (2011). Time Series Analysis For Financial Market Meltdowns. *Journal Of Banking And Finance* 35, 1879-1891.
- INCLÁN, C., TIAO, G. C. (1994) Use Of Cumulative Sums Of Squares For Retrospective Detection Of Changes Of Variance. *Journal Of The American Statistical Association*, 89, 913-923.
- MANDELBROT, B. (1963). New Methods In Statistical Economics. *Journal Of Political Economy*, Vol. 71, N.5, Pp. 421-440.
- MARINELLI, C., D’ADDONA, S., RACHEV, S.T. (2007). A Comparison Of Some Univariate Models For Value-At-Risk And Expected Shortfall. *International Journal Of Theoretical And Applied Finance*, 10, 1043–1075.
- MENN, C., RACHEV, S. T. (2006). Calibrated FFT-Based Density Approximations For A-Stable Distributions. *Computational Statistics And Data Analysis*, 50(8); 1891–1904.
- _____. (2009) Smoothly Truncated Stable Distributions, GARCH Models, And Option Pricing. *Mathematical Methods Of Operations Research*, 69,411–438.
- NEFTCI, S.N. (2000). Value At Risk Calculations, Extreme Events, And Tail Estimation. *Journal Of Derivatives* 2, 23–38.
- PENGELLY, M. (2011). Stressed VAR Questioned By Risk Managers. Site: : [Http://Www.Risk.Net](http://www.Risk.Net). Download: April, 2013.

RACHEV, S.T., STOYANOV, S., FABOZZI, F.J. (2007). *Advanced Stochastic Models, Risk Assessment, And Portfolio Optimization: The Ideal Risk, Uncertainty, And Performance Measures*. John Wiley & Sons, Hoboken, NJ.

RACHEV, S.T., RACHEVA-IOTOVA, B., STOYANOV, S. (2010) Capturing Fat Tails. *Risk*. 72–77, May, 2010.

SCHERER, M, RACHEV, S.T., KIM, Y S, FABOZZI, F. (2009) A FFT- Based Approximation Of Tempered Stable And Tempered Infinitely Divisible Distributions. Site: [Http://Www.Gloriamundi.Com/](http://www.gloriamundi.com/). Download: June, 2012.

SHEEDY, E. (2009). It Is NOT The Econometrics, Stupid. *Risk Magazine*, 106–109, September 2009.

SORWAR, G., DOWD, K. (2010). Estimating Financial Risk Measures For Options. *Journal Of Banking And Finance*, 34, 1982–1992.

TURNER, A. (2009). *The Turner Review: A Regulatory Response To The Global Bankingcrisis*. Financial Services Authority, London.

VALLS, P. , ALMEIDA, N. (2000) Os Modelos SWGARCH Aplicados Ao IBOVESPA. Finance Lab Working Paper. IBMEC: São Paulo.

VEILLETE, M. (2010). Alpha Stable Algorithms. Site: [Http://Math.Bu.Edu/People/Mveillet/Research.Html](http://math.bu.edu/people/mveillet/research.html). 2010.

AIRCRAFT MAINTENANCE REPAIR AND OVERHAUL MARKET IN RUSSIA – CHALLENGES AND OPPORTUNITIES OF THE HIGH-TECH INDUSTRY IN RUSSIA

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ABSTRACT

Over the last 20 years the structure of the Russian and CIS air transportation industry has changed significantly. In some sense it is possible to say that it is degraded and weakened. But also it is obvious that the new opportunities unveiled. And these new opportunities lies in the field of underdeveloped areas of the Industry. One of the weakest links in a complex production chain for the civil aviation in Russia and former Soviet Union Countries is an organization of the Aircraft Maintenance Repair and Overhaul.

INTRODUCTION

Aircraft maintenance consists of periodical inspection of technical condition of aircraft and complex forms of diagnosis and replacement of components that have to be made by the operator of the vessel after a certain time or certain number of hours flown. There are several standard types of services: Transit check, Daily Check, A-check, B-check, C-check and D-check. A-check, and B-check - are simple forms of treatment, while C and D-check are heavy forms of maintenance under which the aircraft is actually fragmenting in components, and then is assembling again (including details of the airframe). The global MRO market on the way to its current operating model has done a fairly large evolutionary distance (see Fig. 1)

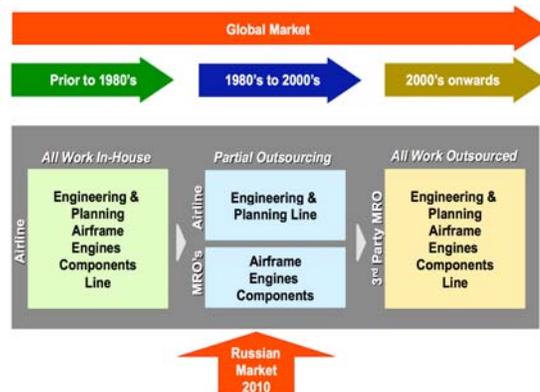


Figure 1. Global MRO industry evolution

At the beginning of the formation of the modern market of civil air transportation its MRO was carried out by structural units of airlines that have had fully independent system of planning and engineering for all types of maintenance. From the 80th of the 20th century heavy and most resource-intensive types of maintenance were delegated to the third party service providers, or to excluded from the mother-companies maintenance units - a former sterling economic units of airlines (still affiliated with the carrier). The onset of the XXI century marked the complete outsourcing of MRO services (since 2000).

SOME REASONS FOR EVOLUTION

There are several reasons for evolution. First of all the reason lies in the fact that the system itself has changed, the functioning principles of the air travel market have changed dramatically. Integration processes were gathering pace all over the world, trade liberalization has occurred. Many countries have changed laws; "free sky" agreement has appeared in the framework of the EU, which in combination led to the development of international air transport sector (according to IATA, in the period from 1980 to 2003 The international sector of the global air travel market has grown by more than 40%).

Aircraft production technology have changed and evolved as well. The intensity of aircraft production and exploitation together with their potential service life has increased signally. In every sense air transport became more liberal, both for airlines and for passengers. Airlines business became more flexible in terms of costs; the lack of multimillion-dollar investments was not any more a real constraint for creation of airlines' own technical infrastructure system as well as for transnational route network organization. Passengers got the opportunity to buy even more cheap tickets.

All these factors led to an increase in total world fleet and in the number of fleet operating companies. This, however, allowed the former maintenance units of large (almost monopolistic) airlines to find new opportunities in servicing third-party companies (competitors, in some sense). Thereby another modern trend of the MRO market was established. The list of largest companies (super providers) in the market at the moment includes: Air France Industries / KLM E&M (France, Netherlands), Delta TechOps (U.S.), Lufthansa Technik (Germany), SIA Engineering Co. (Singapore), SR Technics (Switzerland) and ST Aerospace (Singapore). Thus the fact is that these operators have been allocated from such airlines as: Air France, KLM, Delta Airlines, Lufthansa, Singapore Airlines, etc. In addition to them there are other 20-30 MRO service providers in the world ranging in size from medium to large. On the diagram in Fig. 2, it is shown the ratio of MRO market segments: Engines (up to 40%), components and line services (up to 20% each) heavy airframe and modification (up to 10% each).

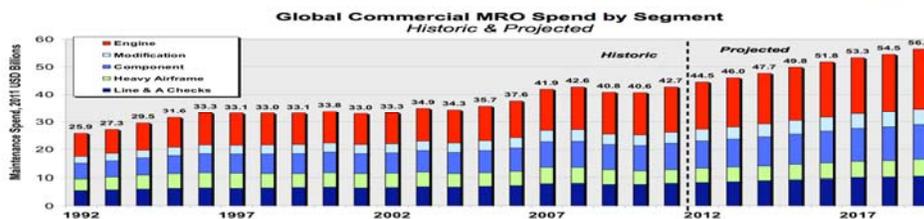


Figure 2.

Modern regional structure of the market and its projected future changes are shown below in Fig. 3. Shifts in the regional MRO market value mainly is due to the size of the fleets, which will grow further in India, Eastern Europe and China and it is not a surprise. TeamSAI and Ascend predict that the total fleet in these regions will double over the next decade, as well as the overall regional fleet in Latin America, in the Middle East and in the Asia-Pacific region. This means that by 2020 the value of MRO market in the Asia-Pacific region, including China, will be approximately equal to the value of the market in Europe and North America, and it is possible that they will surpass them.

The world MRO industry in 2012 is estimated (by AeroStrategy) to 41 billion dollars. It is projected that by 2019 it should grow up to approximately 30% (to reach 60 billion dollars). According to other market forecasts (TeamSAI) by 2019 it will reach only 56.4 billion dollars (see Figure 2).

RUSSIAN MRO INDUSTRY ANALYSIS

According to AeroStrategy consultancy agency, MRO market size in Russia, CIS and Baltic countries in 2011, was close to \$ 1 billion in total (see Fig. 4)

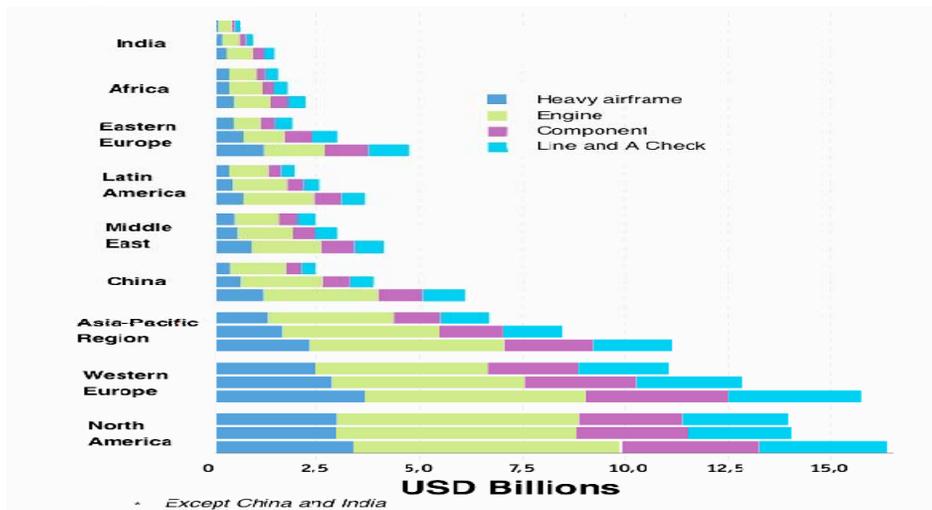


Figure 3. Total expenditure on MRO by regions and segments 2011-2015-2020
 Source: compiled by the author based on data TeamSAI and Ascend

The Transition of Russian airlines from Russian aircraft fleet to the imported products can be regarded as an accomplished fact. Airlines no longer conceal the reluctance to operate Soviet aircraft, and gradually reduce the number of regular flights with that old fleet. Thus, according to Transport Inspection of Russia, over the past 5 years the number of imported aircraft, declared to the operation in the Russian carriers had increased more than 3 times, up to 370 units. In 2012, foreign aircraft accounted for 88% of Russian civil aviation fleet,

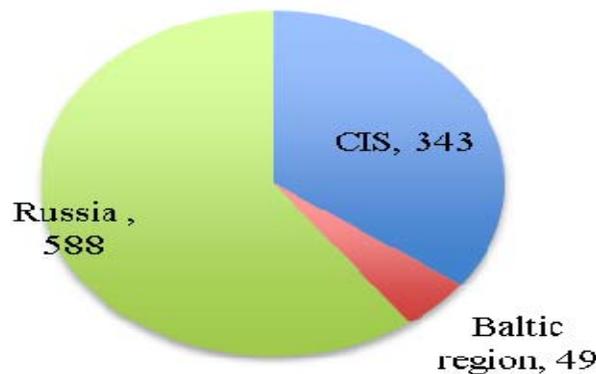


Figure 4. The MRO market size of Russia, CIS and Baltic countries, million U.S. \$, 2011,
 Source: Compiled by author based on AeroStrategy data

replacing older aircraft that were produced in Russia. While in 2006 imported fleet was available only in six Russian airlines, in 2011 more than 30 domestic airlines exploited foreign fleet. The five largest airlines in 2012 (Aeroflot, Transaero, S7 Airlines, UTair and SCC "Russia") are at the same time largest operators of foreign fleet. They account for more than 50% of Russian imported aircraft fleet. At the same time foreign produced aircraft are more actively operated by Russian airlines than domestic counterparts. The share of imported fleet in total passenger traffic in 2012 is close to the 92% and, for example, the Russian Tu-154 aircraft's share for one year decreased from 24% to 9%. The average age of the aircraft in Russia today is 15 years (the world average – 11 years), and regional - 31 years (and in the world - 13 years). In addition, according to the Boeing Corporation aircraft production industry forecast, by the following 20 years the fleet in the CIS countries, Baltic states and

Russia will increase by 13% yet 70% of the modern fleet in 2020 will be replaced with new aircraft, mostly Western-produced (and it shows that the age of the fleet operated in the region is close to edge of the appropriate exploiting conditions). The changes in the Russian airlines fleet composition involve a lot of consequences. One of the most important is the need for adequate and cost-effective system for maintaining the airworthiness, which in turn affects the MRO industry. As already mentioned above, global MRO market size in 2012 was estimated for 41 billion U.S. dollars. In fact, Russia has production facilities and qualified personnel to win a certain share of this market, not only in the framework of services provision to Russian airlines, but also in terms of exporting these services.

Meanwhile such a scenario can be considered only theoretically possible. According to estimations of Eugene Chibiryov (the President of the Russian Association of Air Transport Operators (RAAO)), only 10 foreign companies perform up to 60% of maintenance services for foreign-produced fleet of Russian airlines - of course, this ratio changes from year to year. And we must understand that in the remaining 40% share of Russian companies accounts for a substantial part of "Aeroflot", the technical service provider. Although from time to time it raises the question about the possibility of selling their services to other airlines it still fully loaded with its own fleet. Figure 5 shows the structure of the Russian and CIS MRO market by segments.

In addition, for the Russian and CIS market it is normal that line and A check services (20% of total expenditure on maintenance) are fully implemented in Russia. Engine maintenance (accounts for up to 40%) of western-produced aircraft is carried out almost exclusively by foreign providers, and Russian engine producers obviously maintain local-produced engines directly. Management of the supply chain of components and spare parts (Components - 20%) by nearly 90% is performed by foreign companies, due to the greater intensity of use of western technologies in the CIS countries and in Russia. The segment of heavy maintenance in Russia and CIS (16%) represents a synthesis of certain suppliers affiliated with airlines' MRO, independent MRO operators and foreign operators. In this case, only 3 big airlines (Aeroflot, Sibir (S7), Transaero) tend to completely implement its potential in the development of MRO facilities, adapted for heavy airframe service.

Current Status and challenges of the Russian MRO market

First of all, a number of serious shortcomings in the legal framework not only prevents the export of MRO services, but also creates difficulties and barriers for operation of foreign-produced aircraft in Russia.

The vast majority of the foreign-produced commercially used fleet in Russia has foreign registration (Bermuda, Ireland etc.), and the legal basis for their operation is provided by the amendment 83-bis to ICAO Convention, in accordance with which the country of registration of the Aircraft delegates a part of the enforcement power for the control over the maintenance of airworthiness to the country, where the operator is based. However, due to the fact that the Russian legal framework is not sufficiently harmonized with international law, there are a lot of inconsistencies. For example, during the operation of the same type of aircraft according to the Russian rules PRAPI-98 and U.S. operating rules JAR-OPS is completely different. The lists for the same regular technical check are different, and Russian rules are much stricter, the number of checked items in the average 2-fold greater. Obviously, this is reflected in the MRO system and in the economic efficiency of aircraft operation of foreign-produced fleet in Russia. It should be noted that the Department of airworthiness management of civil aircraft of Russian Federal Air Transport Agency "Rosaviatsia" has a full understanding of these issues and of the need to rework the rules for international requirements. It is declared that the Agency is already working on it. In particular, it is argued that the work on the modernization of PRAPI-98 has already begun. There are other problems remaining, but anyway, the dialogue of air fleet operators and MRO companies with "Rosaviatsia" and Russian Transport Inspection can be considered as constructive. But in the area of customs and tax legislation the situation is much worse. Probably, the most glaring example - is the absence of the AOG concept (Aircraft on the Ground) in the Russian customs legislation - a situation in which the aircraft lost its airworthiness and had to stand up to replacement of the corresponding component. The conventional approach is that the required spare part is installed in the shortest time on the plane, which continues than its operation as soon as possible, and after that you can deal with customs clearance, because all the details and manipulations are documented already. In Russia, it is impossible – firstly the customs clearance of spare parts should be carried out, and only then its installation on the plane can be performed. A time of registration may be delayed (one day demurrage costs an average from 10 to 50 thousand dollars). The possibility of repairing

foreign airline's aircraft in Russia negates by the fact that the temporary importation of aircraft may require (according to Russian law) a cash deposit, the amount of which to the cost of the aircraft makes pointless the whole operation. But in practice, there is no evidence of registration of such cases. As a result, we can say that despite all the prospects at this time, Russia is losing MRO market. Just because of the imperfections of the customs and tax regulations Russia loses about \$ 1.5 billion per year - roughly the amount spent on foreign providers for the maintenance and repair. Carrying out such works in Russia is simply unprofitable or impossible ("Siberia Technics" estimations).

There are several reasons why Russian airlines delegate these services to foreign contractors. First and foremost is the risk of delayed release of the aircraft because of missing or incomplete delivery of spare parts, and, as discussed earlier, each extra day of downtime cost airlines dearly. Typical spare parts' delivery time in Russia is from 5-14 days, whereas in Europe it does not exceed 72 hours.

A long time of customs clearance precludes units' maintenance in a short time. In addition, high tariffs lead to an increase of the value of the Maintenance on the territory of Russia. Components and consumables supply system management is difficult and extremely expensive.

As the final result - Russia is losing a lucrative high-tech market of civil aircraft MRO and workplaces as well. To solve this problem it is required a number of measures of the state support. It is important to accelerate and simplify the procedures of customs clearance of materials and spare parts for the maintenance of foreign-produced aircraft. The customs duties on components for maintenance and repair tools and diagnostics equipment (not manufactured in Russia) have to be eliminated. The government should create a special programme in order to encourage maintenance of the foreign-produced aircraft of Russian airlines on the territory of Russia.

CONCLUSION

The global MRO market is gradually moving toward complete outsourced model of the services provision. For airlines it means the potential release of resources and lower operating costs. For air travel market as a whole it means a magnification of the operational efficiency and increase of affordability of air transport for the people around the world.

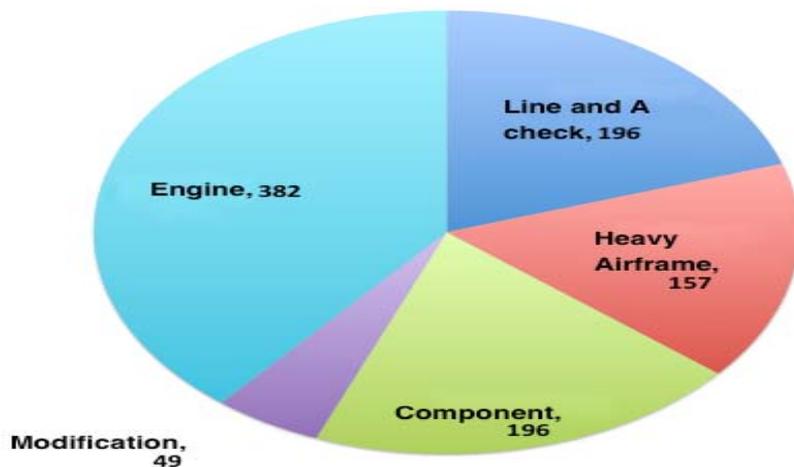


Figure 5. Russia and CIS MRO market structure by segments, U.S. \$ millions, 2010.
Source: Compiled by author based on AeroStrategy data.

In the world there is a persistent trend of increasing airline costs of operating and maintaining power plants (engines), and other heavy forms of services despite the fact that the share of the remaining segments of the maintenance stabilizes or grow more slowly. That is a fundamental consequence of the evolutionary development of the global aviation industry: an increase of the between-maintenance intervals due to the

achievements of the modern materials and increase of the high-precision operations proportion in the process of final assembly of the aircraft and in the manufacturing of components.

In terms of regional structure of the market, the greatest growth prospects has the East and South-East Asia, strong growth is also possible in the Eastern European region (which, actually, includes Russian Federation), but on a global scale Russian market share growth is not expected.

Russian market of MRO has growth prospects, primarily for reasons of a rapidly changing structure of the fleet and just because of the further increase in their number. Also, because of the irrationality of the existing system of aircraft maintenance organization, in which a large share of the Russian market is occupied by foreign providers, that in fact provide their services abroad.

A number of serious institutional constraints imposed by imperfect Russian law prevent the further development of the MRO market as well as Russian Civil Aviation in general. Thus, based on the stated main objectives in this article the following headnotes can be formulated: the implementation of the large projects in the field of civil aviation (and they all are large a priori), in particular establishment of the MRO facilities on the territory of the Russian Federation has great perspective on the global and regional market conditions, but in reality it faces significant difficulties (perhaps unnecessary), because of the strong administrative barriers, as well as immaturity and defectiveness of institutional environment that makes any civil aircraft MRO enterprise uncompetitive in the global framework

REFERENCES

- Alexander T. Wells, John G Wensveen Air Transportation: A Management Perspective (2009), Ashgate
- Triant flouris, Dennis Lock, (2011) Managing Aviation Projects from Concept to Completion, Ashgate
- Karzner H. (2003) Project Management: A Systems Approach to Planning, and Controlling, John Wiley & Sons
- Peter Belobaba, Amedeo Odoni, Cynthia Barnhart (2009) The Global Airline Industry, John Wiley and Sons
- Norman Ashford, H. P. Martin Stanton, Clifton A. Moore (1998) Airport Operations, McGraw-Hill Professional
- Gido J., Clements J. (2008) Successful Project Management, South-Western College Pub, 2008
- Hartman, F.T., (2000), Don't Park Your Brain outside, Newtown square, Pa., Project Management institute.
- Delfmann W., Baum H., Stefan Auerbach, Sasha Albers (2005), Strategic Management in the Aviation Industry, Ashgate
- Harry A. Kinnison (2004), Aviation Maintenance Management, McGraw-Hill
- Clifford Winston, Gines de Rus, (2008) Aviation infrastructure performance: A study in comparative political economy, The Brookings Institution Press
- J.Triant G. Flouris, Sharon L. Oswald, (2006) Designing and executing strategy in aviation management, Ashgate
- Lewis J. (2006) Fundamentals of Project Management, AMACOM,
- Jack Hessburg (2001) Air Carrier MRO Handbook: Maintenance Repair and Overhaul, McGraw-Hill Professional
- A Guide to the Project Management Body of Knowledge (2004), 3rd Edition, PMI,

Manoj S. Patankar, James Chapman Taylor (2004) Risk management and error reduction in aviation maintenance, Ashgate,

Devaux, S.A., (1999), total Project Control: A Manager's Guide to Integrated Planning, Measuring and tracking, Wiley.

Nicholas J., Steyn H. (2008) Project Management for Business, Engineering, and Technology, Butterworth-Heinemann

DeWeaver. M.f. and gillespie, l.c., (1997), Real World Project Management: new Approaches for Adapting to Change and uncertainty, Quality resources.

Kerzner, H., (2000), Applied Project Management: Best Practices on Implementation, Wiley.

Boussabaine A., Kirkham R. Whole (2003) Life-Cycle Costing: Risk and Risk Responses, Wiley-Blackwell

Meredith, J.R. and Mantel, S.J. jnr., (2003), Project Management: A Managerial Approach, 5th edn, Wiley.
Boeing Current Market Outlook 2011-2030

SH&E Aviation Consultancy – Global Aviation Maintenance Repair and Overhaul, 2010 (analytical report)

Pyadushkin M. Increasing Import, Air transport observer 'Yearbook 2010 figures and Facts. ', 2011 . A.B.E. Media Publishing

Annual report //SCAC – 2009.

Tegtmaier Lee Ann. Strengthen MRO // "Air Transport" Air Transport Observer ". - 2010. - October 2010.
Sinitsky A. Russia is losing MRO market // "Air Transport Observer". - 2010. – March. 2010

Sinitsky A. MRO in Russia: untapped market // "Air transport observer 'Yearbook 2010 figures and Facts.'" 2011- A.B.E. Media Publishing

AeroStrategy (Aviation Consulting) MRO Forecast. - 2011. - Mode of access:
http://www.aerostrategy.com/industry_insight/mro_forecast/

<http://www.flightglobal.com/> - the world's leading provider of aerospace news and data

www.avia.ru – Russian Aviation Aircraft Internet portal

www.aex.ru – Community of aviation experts.

www.ato.ru – Business Aviation portal

www.boeing.com – Official web-site of American aerospace corporation

www.aviafond.ru - Official web-site of the Russian Air transport development foundation

<http://www.icfi.com/markets/aviation> - Official web-site of the Consultancy Agency that provides special services in the field of Civil Aviation

<http://www.mintrans.ru> - Official web-site of the Russian Ministry of Transportation

<http://www.oao-oez.ru/> - Official web-site of the JSC Open Economic Zones

<http://www.shannonireland.com/> - Official web-site of the Shannon Special Economic Zone

GRAPHICAL ANALYSIS OF FINANCIAL STABILITY IN THE CORPORATE FINANCIAL MANAGEMENT

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ABSTRACT

What is meant by the financial stability of the enterprise? How it may be estimate and provide. The paper presents the results of a study of approaches to the evaluation of financial stability, the analysis of the actual state of the companies represented by the author's approach to solving problems through engineering a visual model of financial equilibrium.

INTRODUCTION

To create the conditions for sustainable growth of the company, it should be provided with the necessary and sufficient financial resources. In other words, the condition of financial stability of the company's must be enough for core business and long-term investments. Now many enterprises have poor finance state. The authors analysis insure us that more, then about 60% of enterprises can not provide industrial assets (fixed assets and inventory) by normal resources of foundation (owners' equity, long-term debt and quick-term credit); 24% of enterprises have fixed assets to current assets ratio more then 0.3; 51 % of enterprises have ratio debt capital and current liabilities to owners' equity more then 1; 73% of enterprises have current ratio (liquidity) less 2; 75% of enterprises have profit margin low then 20%; 69% of enterprises have day's turnover off enterprise bills receivable more then 30 days and 80% of enterprises have day's turnover off enterprise bills payable more then 30 days.

This article continues the solving problems of a financial management quality control, management quality and financial management quality in an enterprise.

RESEARCH APPROACH AND METHODOLOGY

For a complete and comprehensive solution of the problems, for research process as a whole, the first step was the search and review of related literature. An understanding of key issues, themes, perspectives, and indicators was highlighted through the literature review.

Analyzing evidence were used data from the financial statements of public companies, mostly with the legal status of public corporations (about 250 companies). The research was organized in terms of both the quantitative and qualitative forms of analysis. Qualitative analysis was used to generalize the data in the analysis.

LITERATURE REVIEW

There are several approaches to the assessment of financial stability from narrowly specific (ability to repay debt) to the prospective evaluation of the quality of the financial capacity of the company.

Financial analyst practice and consultant work in the field of enterprise management allows the author to focus on the next point of view. It seems appropriate to consider the financial stability as part of the quality of financial statement of the company.

The company financial statement can be described by the following characteristics [12. Zhilkina, 2012; 13. Zhilkina, 2005; 14. Zhilkina, 2008]: Finance stability; Liquidity; Probability of bankruptcy; Financial results and its structure, Structure and effectiveness of capital investment, Structure and efficiency of the assets.

In this approach, financial stability will ensure the timeliness and adequacy of payments for uninterrupted production process, that is, to ensure Solvency of the company.

The very concept of the company's Solvency is in modern literature debatable. Most often, the concept of solvency occurs together with the concept of financial stability. Problems of solvency and financial stability on sacred work of many of the scientists, but as yet there is no generally accepted definition of the degree of solvency companies, as well as certain financial stability. A.D.Sheremet believes that the essence of the financial stability of the company lies in its ability of stocks to meet their corresponding sources of financial resources, the ability of its own funds to finance the tangible working capital means a coating reserves through appropriate sources (permanent capital) and company fixed assets. Thus, under the solvency means existence of its own funds to finance production and investment activities enterprise in sufficiently sizes. [15.Sheremet, 2011] Accordingly, the remaining uncovered part of current assets, which are not in material form, should be covered by current liabilities of the company. The company can be considered financial aggregate stable if the state financial resources, their distribution and use, provides enterprise development based on growth of profits and capital, while maintaining solvency and creditworthiness in the acceptable level of risk. M.A.Fedotova characterize financial stability as stability excess earnings over expenditure, the company's ability to freely maneuver cash and through the effective use Vat ensures the sustainability of production and sales. There are other points of view of the scientists.

Finance stability (Solvency) has five levels:

1) Absolute finance stability:

$$FA + Inv \leq Eq, \quad (1)$$

were FA - fixed assets;
Inv - inventory
Eq - equity

2) Normal finance stability:

$$FA + Inv \leq Eq + LTD, \quad (2)$$

were LTD – long-term debt

3) Permissible Finance instability:

$$\begin{cases} Eq + LTD < FA + Inv \leq Eq + LTD + STC \\ FA + Inv USP \leq Eq + LTD \end{cases} \quad (3)$$

were: STC - shot-tern credit;
Inv USP - unsaleable part of the inventory

4) Unpermissible Finance instability

$$\begin{cases} Eq + LTD < FA + Inv \leq Eq + LTD + STC \\ \end{cases} \quad (4)$$

$$\lfloor \text{FA} + \text{Inv USP} \leq \text{Eq} + \text{LTD}$$

5) Critical finance stability:

$$\text{FA} + \text{Inv} > \text{Eq} + \text{LTD} + \text{STC} \quad (5)$$

How can they be assessed as having complete and accurate information about the financial statement of the company?

All existing approaches can be divided into two groups: the ratio analysis and evaluation of analytical tables. Set of ratio can be quite diverse. With clear benefits - immediate evaluation and scale issues identified, still ratio analysis is more applicable in the comparative analysis of different companies.

If the task is to develop a system of financial management companies need a way to allow for a full factorial analysis. Let's see how we apply the method of analytical tables to address the problem (see tabl. 1, on APPENDIX date).

Tabl.1: The finance stability

Property	Value, % in balance		The trend
	at the beginning	at the end period	
1. Capital and reserves (equity)	78,75	78,84	↑
2. Fixed assets	68,38	69,38	□
3. Working capital	10,37	9,46	□
4. Long-term liabilities	11,58	11,62	↑
5. Permanent working capital	21,95	21,09	□
6. Short-term loans and credits	3,06	3,07	↑
7. The main sources of formation of the inventory	25,01	24,16	□
8. Inventory	3,01	24,03	↑
9. Excess or lack of own working capital	7,36	-14,56	↑
10. Excess or lack of permanent working capital	18,93	-2,94	↑
11. Excess or lack of the main sources of formation of the inventory	21,99	0,13	↑
12. Type of financial stability	Absolute finance stability	Finance instability	↓
13*. Unsaleable part of the inventory	-	2,03	n/a
14*. Excess or lack of permanent working capital for unsaleable part of the inventory	-	9,59	n/a
15*. Subtype of non-financial stability	-	Permissible	n/a
16. The degree of the enterprise solvency	Absolute finance stability	Permissible Finance instability	↓

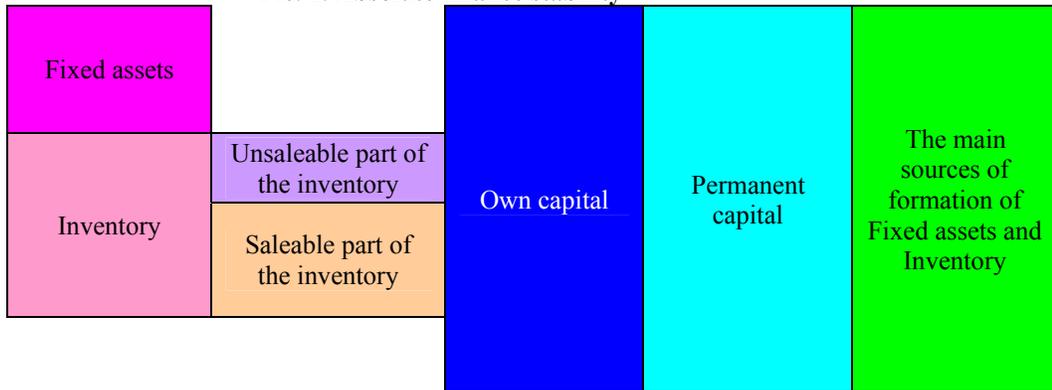
*- calculated in precarious financial condition.

The analysis made known absolute values of excess and lack of sources of production assets. However, factor analysis is not transparent.

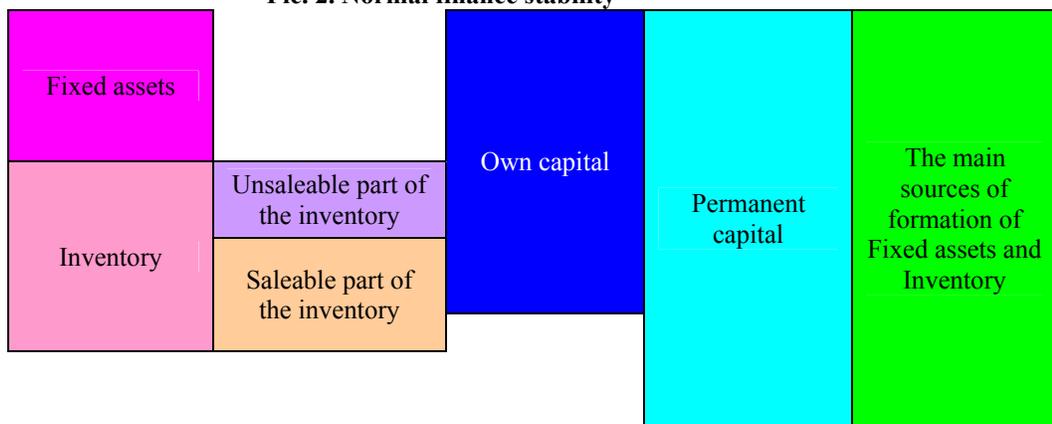
GRAPHICAL METHOD OF FINANCIAL ANALYSIS

Graphical method allows you to visualize not only present the actual financial condition, but also identify areas for improvement. Consider the possible combination of assets and sources of their formation (pic. 1-5).

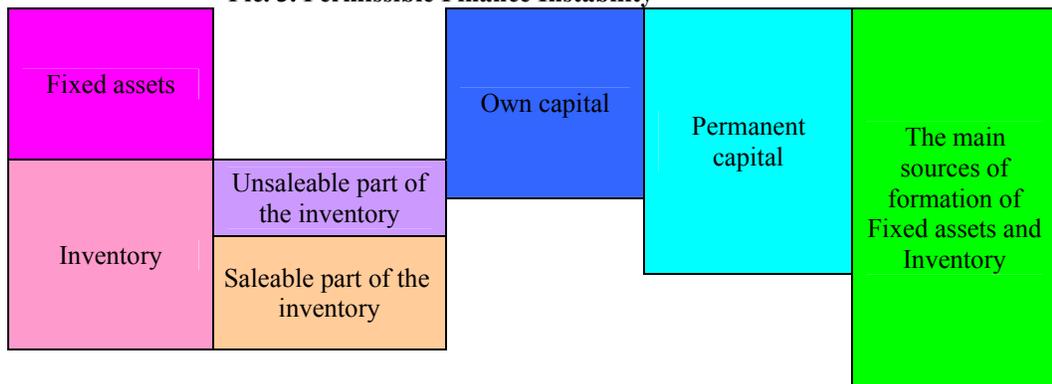
Pic. 1. Absolute finance stability



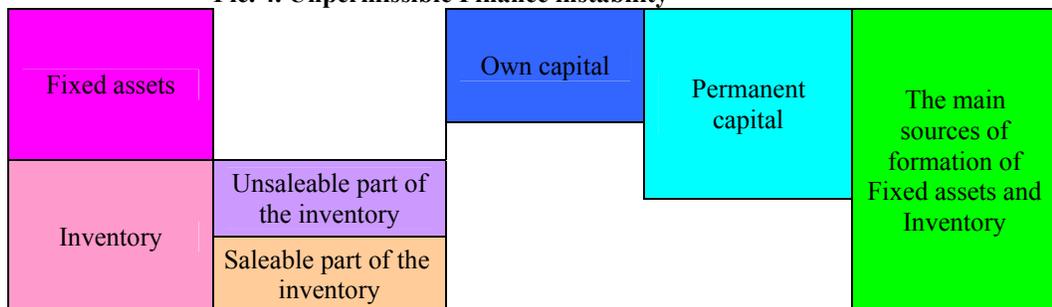
Pic. 2. Normal finance stability



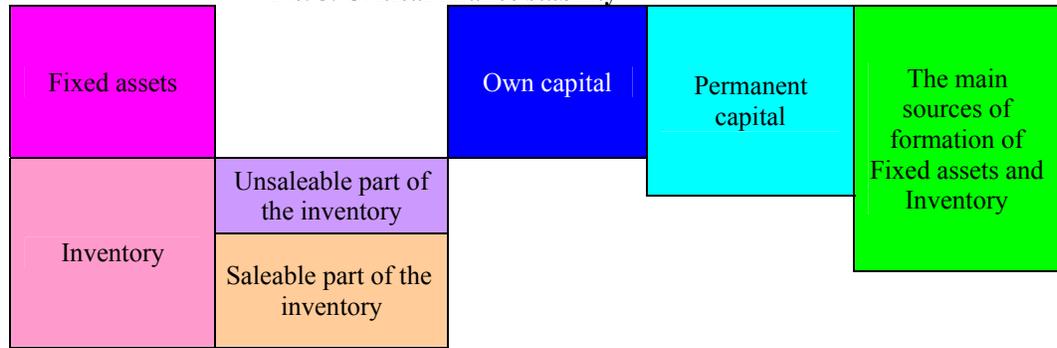
Pic. 3. Permissible Finance Instability



Pic. 4. Unpermissible Finance instability



Pic. 5. Critical finance stability



The analysis made known absolute values of excess and lack of sources of production assets. However, factor analysis is not transparent.

FINANCIAL MANAGEMENT USING

Comparison of graphics at the beginning and end of the analyzed period can not only assess the actual condition, but allow for a factor analysis. For this analysis is sufficient to compare the values of indicators factors. With the growth of asset situation is worsening, with the growth of liabilities - is improving. So, if we want to increase the financial stability we must growth the liabilities and reduce assets.

CONCLUSION

Summarize the listed models it is possible to say that the financial analysis system, undoubtedly, is an important element of a control system of knowledge at the enterprise and that this financial analysis system makes to enterprise management special demands. Integration of data of the financial analysis into the general management system at the enterprise will allow to raise quality of a control system of the enterprise, and to create enterprise competitive advantages.

APPENDIX

Tabl.1: The finance stability data Fram1

Index	Company 2		Company 7		Company 25	
	at the beginning	at the end	at the beginning	at the end	at the beginning	at the end
Fixed assets	33956	40047	128260	129520	6312	2230
Current assets	73730	69785	190409	193099	256436	144804
Inventory	10119	15708	115134	121277	161381	44504
unsaleable part of the inventory	0,00	0,00	4755,00	8221,00	13463,00	47504,00
saleable part of the inventory	10473,00	15712,00	114421,00	113845,00	162639,00	-3000,00
Accounts receivable	21767,00	26439,00	61352,00	63174,00	49543,00	38423,00
Cash	36807,00	23248,00	9881,00	7859,00	29481,00	61877,00
Rest current assets	4683	4386	0,00	0,00	1309	0,00
<i>Total assets</i>	107686	109832	318669	322619	262747	147034
Equity	44335	43879	199166	202074	31791	24830
Long-term debt	1241	1581	7822	7075	81487	39406

Current liabilities	62110	64372	111681	113470	149468	82799
Short-term debt			79462	59277	53097	
Accounts payable	62110	63973	25664	47210	96371	82799
Rest current liabilities	0,00	399,00	6555,00	6983,00	4,00	0,00
<i>Liabilities and Owners' Equity</i>	107686	109832	318669	322619	262747	

Tabl.1: The finance stability data Fram2

Index	Company 29		Company 37		Company 45	
	at the beginning	at the end	at the beginning	at the end	at the beginning	at the end
Fixed assets	1351	880	45 868	78 443	1829	2230
Current assets	43524	49556	381358	530572	15547	144804
Inventory	30977	40251	149 128	147 265	5092	44504
unsaleable part of the inventory	23040,00	33662,00	0,00	0,00	5089,00	47504,00
saleable part of the inventory	7938,00	6589,00	179226,00	181424,00	3,00	-3000,00
Accounts receivable	7608,00	2819,00	121821,00	322457,00	4196,00	38423,00
Cash	3849,00	5845,00	78317,00	25633,00	6259,00	61877,00
Rest current assets	1089	641	1 994	1 058	0,00	0,00
<i>Total assets</i>	44875	50436	427 226	609 015	17376	147034
Equity	1363	2137			10693	24830
Long-term debt	61	20				39406
Current liabilities	43451	48279			6684	82799
Short-term debt	9144	6829	72 655	107 892		
Accounts payable	34185	41440	266 314	319 520	6684	82799
Rest current liabilities	122,00	10,00	16,00	37,00	0,00	0,00
<i>Liabilities and Owners' Equity</i>	44875	50436	427 226	609 015	17376	147034

REFERENCES

Ross, Westerfield, Jordan. Fundamentals of corporate finance, Boston.: MGH, 2008.

Sheremet, A., R. Saifullin Method of financial analysis, Moscow, INFRA-M, 2007.

Zhilkina A. A new instrument of enterprise finance management quality increasing, Materials of the conference GBATA, 2006.

Zhilkina A. Finance management. Enterprise finance analysis, INFRA-M, 2012. (in Russian)

Zhilkina A. Methodology of an enterprise synthetic analysis. State University of Management Bulletin (Vestnik Universiteta), 2005, №2(11).

Zhilkina A. Enterprise financial planning, Moscow, Blagovest-B, 2008.

INTERCONNECTION OF EFFECTIVENESS AND COMPETITIVENESS IN MANAGEMENT

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ABSTRACT

The results of a large-scale methodological research of organizational effectiveness increasing methods as a part of its competitiveness. There are elaboration of the terms effectiveness and competitiveness in relation to the structural and functional management approach, attempt to explain the terminology model of effectiveness and competitiveness components. And also presented a methodological approach, which can be the basis of indicators system to measure the effectiveness of the organization.

INTRODUCTION

Methods of management development and improvement in accordance with the constantly changing environmental conditions have a special place at the modern reality of the Russian economy. So companies need to have a clear model of its own chain of added value tools and reliable tools to ensure its competitiveness. Only if the internal structure of the organization, including the structure of business processes, are constructed so that its can be measured and compared, the company is able to carry out their constant and continuous adaptation to the changing conditions of external environment. Any process should be described in such a way as needs to accounting, monitoring and operation (purpose of the process, its resources, expected results, performance and effectiveness indicators). It means that review of the business processes' effectiveness as a basis of processes' monitoring and as a consequence company's competitiveness becomes more and more actual.

ANALYSIS OF VARIOUS ASPECTS OF THE EFFECTIVENESS IN MANAGEMENT

Analysis of management literature showed that only 50% (including 40% of the definitions taken from dictionaries) sources provide a clear definition of "effectiveness". So this research will attempt to justify the definition of "effectiveness" and connection of "effectiveness" and "competitiveness".

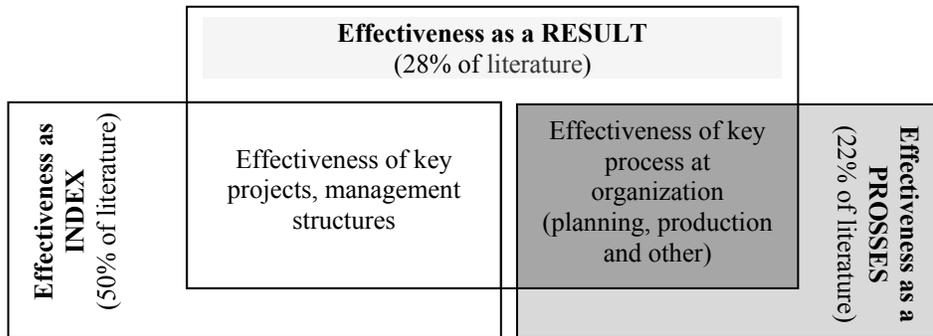
Results of literature review have shown that "effectiveness" is considered in three aspects: as an indicator, as a result, and as a process (see Figure 1).

There is the effectiveness as a result, which is understood as a specific useful effect in the top square of Figure 1. This aspect of effectiveness shows the ratio of the actual figure for the planned or the maximum possible figure. This is the result of operations, projects, processes, which is expressed as the absence or reduction of financial and time losses and other positive effects (increased productivity, sales growth, etc.). Thus, this aspect of the effectiveness emphasis on property management systems to produce a positive business results. And its main synonymous is performance.

There is effectiveness as index in the left square in Figure 1, it is understood as a ratio of the result (effect) and costs. There is impotent exactly numerical measurement of effectiveness. However, most authors target for organizations to define the maximum level of effectiveness, which mean maximum effect with

minimum cost. But market conditions do not always require it to achieve maximum efficiency. So it's necessary to define term of optimal level of effectiveness. Thus the ratio of the planned outcome to the planned cost can be defined as optimal level of effectiveness.

Figure 1: Aspects of the term “effectiveness”



Thereby, such aspect of effectiveness is understood as measure an effect of the system taking into account its cost to operate. There is efficiency as the process of achieving a positive result in the right square of Figure 1. Authors consider effectiveness of planning, production, distribution, etc. in this aspect of effectiveness. Process' effectiveness means the ratio between the process' effect and process' cost. As already mentioned, monitoring and as a consequence rising of process' effectiveness results in the ability to manage company competitiveness. But this statement requires further review.

INCONNECTION OF “EFFECTIVENESS” AND “COMPETITIVENESS”

So effectiveness is a characteristic of a processes' complex in major organizational systems (production, operational, information, logistics, financial), which determines realization of their properties and resources to achieve necessary results. But the concept of the overall organizational effectiveness as an open socio-economic system needs to be separate from effectiveness of organizational management structure in order to determine the factors of influence and the tools to improve the overall organizational effectiveness and competitiveness.

Consideration of the company in terms of its organizational structure and as a complex of departments' functions is typical only to functional management approach. Process management approach is characterized by consideration of the organization as a complex of result-oriented processes. Management structure defines the goals and direction of development in this approach, and process structure is responsible for its implementation.

And despite the fact that the optimization of the management structure is defined by many authors as a condition for increasing the overall effectiveness and competitiveness of the company, there is no separation of overall organizational effectiveness and effectiveness of organizational management structure in modern literature.

Thus, under the effectiveness of organizational management structure should be understood measure of its performance and impact in the implementation of the company strategy. Consequently, overall effectiveness of the company consists of the effectiveness of its management structure and processes' effectiveness in other systems (operating, logistics, etc.). The effectiveness of management structure is the basis of the overall organizational effectiveness and is the most important, but not the single defining factor in its internal environment.

For a clearer separation of concerns the overall effectiveness and effectiveness of organizational management structure it needs to consider in terms of environment and to determine the relationship between the concepts of "effectiveness" and "competitiveness".

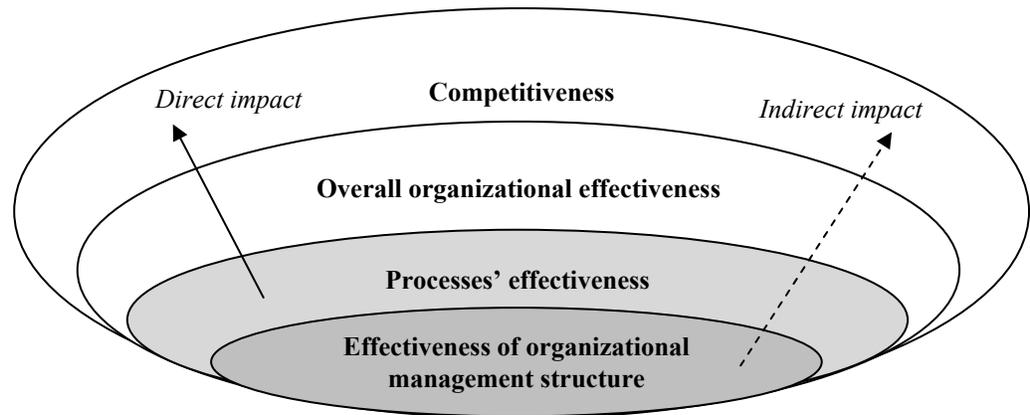
So there is product competitiveness as the set of competitive advantages that give the consumer bigger value (low price, high quality, providing greater benefits and service) in literature, which main factors are price and quality. And there is also company's competitiveness as the ability of the company to meet the demands of the customers, which is determined by the company's strategy and the ability of the company to implement it, means its effectiveness. Therefore competitiveness of products is part of the company's competitiveness.

For the other part of the competitiveness of enterprises is the overall effectiveness of the company, as characterizes the ability to achieve its goals with minimal cost (see Figure 2).

The overall organizational effectiveness provides flexibility and speed of reaction to the changing of external environment and improving the quality of services / products, and thus meet the expectations of customers.

The effectiveness of management structure of the company, as part of the overall organizational effectiveness, has an indirect impact on the competitiveness of the company (see Figure 2), because management structure determines only the goals and direction of development. But the effectiveness of key processes has a direct impact on competitiveness, because main processes determine the mechanisms of implementation of the set goals (see Figure 2).

Figure 2: Connection of “effectiveness” and “competitiveness”



The statement about the degree of influence of different kinds of effectiveness on the competitiveness of the company as a whole requires further empirical research. But at this stage of the analysis, the allocation of the components of competitiveness can better define and evaluate interdependence of competitiveness, processes and management structure in the functional and process-oriented organizations.

CONCLUSION

However, at this stage of the analysis, the separation of the overall organizational effectiveness on the effectiveness of its management structure and the processes' effectiveness is relevant because can combine management structure and key processes of the organization for evaluation, monitoring and improving according environmental requirements. As well as the identification of the competitiveness' components and overall organizational effectiveness allows to define more clearly the criteria for assessing the quality of the results of the company and its ability to meet customer needs, therefore, to influence the market and set new standards in the industry.

Thus, the proposed approach is the basis for monitoring and control components of the effectiveness and competitiveness, and thus the tool to creating a transparent model of value creation chain for the company and improve it according to the customers' needs and requirements of the owners.

REFERENCES

Anna Witek-Crabb Sustainable strategic management and market effectiveness of enterprises//*Procedia - Social and Behavioral Sciences* 58 (2012) 899 – 905

Jen-Te Yang, Chin-Sheng Wan Advancing organizational effectiveness and knowledge management implementation// *Tourism Management* 25 (2004) 593–601

Hajo A. Reijers, Wil M.P. van der Aalst The effectiveness of workflow management systems: Predictions and lessons learned// *International Journal of Information Management* 25 (2005) 458–472

R. W. Lawson, Division of Economic Studies, University of Shejjeld, U.K. Marketing: The Key to Organizational Effectiveness//*Long Range Planning*, Vol. 16, No. 4, pp. 90 to 92, 1983

Economics A-Z terms // Electronic resources - <http://www.economist.com/economics-a-to-z>

Oxford Dictionaries // Electronic resources - <http://oxforddictionaries.com/>

Pramendra Kumar Singh Management of Business Processes Can Help an Organization Achieve Competitive Advantage// *International Management Review* - Vol. 8 No. 2 2012 – p. 19-27.

Bedredinov R, Bedredinov T. Audit of the organizational structure at the bank. // *Management Today* - № 01 (49) - 2009.

Business. Dictionary. - M.: "INFRA-M", Graham Betts, Brayndli Barry, S. Williams and others// Edited by: Dr. Osadchaya IM. 1998.

Lobanov M, Osipov Y. The assessment of product competitiveness // *Marketing in Russia and abroad, № 6 - 2001*

Moiseeva V. Quality Management System // *Management Today* - №03(33) – 2006 – p. 144-153.

Pavlutsky A., Process Consulting // *Management Today* -№ 1 – 2004.- p. 15-19.

Ralph P. Mroz (Ralph P. Mroz) How to unified marketing: marketing processes synchronization // *Management digest* - №6 / 06 -2004 – p. 27-55.

Ryzhkovsky B. The ideal model of a nonideal Company // *Management Today* - № 5 – 2005.

Sterligova A.N. Control of the operating organizational environment. — M.: 2012. — ISBN.

Tishkov Y. Management and organizational structure as a management tool: the experience of construction and optimization // *Strategic Management* - №02(14) – 2011. – p.130-144.

Shmatalyuk A., Koptelov A. Technologies of Business Process Management / *Management / Corporate Finance* - №5/2004 – p. 2-7.

INNOVATIVE BUYING BEHAVIOUR INTEND: A SEGMENTATION OF COMMERCIAL FARMERS IN SOUTH AFRICA

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ABSTRACT

With ever changing production requirements and progressive operational needs of commercial farmers, the market is constantly introduced to new product innovations. Despite the numerous studies that have been undertaken in the field of consumer buying behaviour, an extensive search of leading electronic journal databases could not yield any research findings relating to innovative buying behaviour intend amongst commercial farmers in South Africa. This paper focuses on addressing this gap by exploring levels of perceived innovativeness amongst commercial farmers in South Africa and using it as a base for market segmentation. A survey of 917 commercial farmers yielded quantitative data for analysis. The data was used to develop an index measure of innovative buying behaviour intend. The index was subsequently used as base for segmenting the market. The focus fell specifically on those farmers portraying high levels of intend and characterising them in terms of selective demographic, firmographic and behavioural discriminators. The findings contribute towards understanding buying behaviour intend amongst commercial farmers in South Africa.

INTRODUCTION

Consumers in general differ from one another in the degree to which they display innovative buying behaviour intend. Midgley and Dowling (in Roehrich, 2004) define innovative buying behaviour as the tendency to buy new products more often and more quickly than other people. With the risk of failure when launching any new product or service offering in a market, it is often of value to marketing practitioners to be able to predict early product adoption levels as well as understand drivers of innovativeness. Black *et al.* (2001) state that gaining insight into why some people adopt a particular product as well understanding the factors that may influence this decision is likely to be of considerable practical value.

The notion of innovative buying behaviour intend also holds true for the commercial farmer market in South Africa. With an estimated 39 000 commercial farmers in South Africa (Statistics South Africa, 2009), the agricultural sector has long served as viable target market for many firms. In order to address the ever changing production requirements and progressive operational needs of commercial farmers, the market is constantly introduced to new product innovations. But as in many other consumer markets, some farmers are often more willing or eager to try out unfamiliar and innovative products than others.

This paper intends to contribute towards furthering an understanding of consumer behaviour amongst commercial farmers in South Africa. It seeks to address the innovative buying behaviour intend in this market. Secondly, it concerns with how innovative buying behaviour intend can serve as base for market segmentation. The latter part of the paper reflects on the results and findings from a quantitative study that was conducted amongst a representative sample of commercial farmers in South Africa, measuring innovative buying behaviour intend. The paper concludes with a discussion on the implication of the findings for marketers.

PRODUCT ADOPTION AND INNOVATIVE BUYING

BEHAVIOUR

The importance of studying early product adoption

A review of the literature provides ample argument for the studying of early product adoption, including innovative buying behaviour. The innovator segment has in particular been researched extensively and is often described in relation to other adopter segments. Hirschman (1980), for example, state that “Few concepts in the behavioural sciences have as much immediate relevance to consumer behaviour as innovativeness”. The state of ever changing consumer behaviours furthermore emphasises the importance of studying early adopters. Firat, Dholakia and Venkatesh (1995:44) encapsulate one of the challenges of postmodern marketing by stating that “global competition and technological innovations ensure that, as soon as consumer behaviour in any field is on the verge of stability and explainability, new products and services are introduced to destabilise the consumer behaviour model so as to create competitive openings for challengers, niche players, and other contenders.”

Bowden and Corkindale (2005) cite the value of feedback on product design and benefits derived as essential reasons for studying early adopters. Much reliance is also placed by marketers on the characteristics that define the early adopter segment in planning their marketing communication. Despite a lack of evidence in the literature on the existence of a ‘super-innovator’ type consumer, whom adopts across all product categories, tendencies towards early adoption across certain product categories, for example technology, has been shown (Parasuraman, 2000). Bowden and Corkindale (2005) also postulate that it is very reasonable to assume that early adopters in most categories probably exhibit similar traits. It is on this basis that the researchers believe that studying innovative buying behaviour intend of commercial farmers and their general traits and characteristics without focusing on a specific product or product range, hold significant value for marketers.

Explaining innovative buying behaviour intend

A review of the literature highlights two main views on what constitutes innovative buying behaviour. The one view proposes an innate quality of innovativeness, while the other holds the premise of innovativeness being time dependent. Rogers (2003) defines innovativeness as the extent to which an individual adopts new ideas relatively earlier than other members of a social system. This definition is clearly time dependent, and this segment is statistically easily determined based on a subtraction of two standard deviations (or more) from the mean time it took to adopt a product. However, this approach provides limited predictive insight due to such a process being calculated only after the launch of a product (McDonald & Alpert, 2007). On the other hand, Midgley and Dowling (in McDonald & Alpert, 2007) promotes an alternative conceptualisation of innovativeness. They define it as the “degree to which an individual makes innovation decisions independently of the communicated experience of others.” Thus, innovativeness can take place very late in the diffusion cycle of a product. Midgley and Dowling make a further distinction between innate and actualised innovativeness. Innate innovativeness refers to the trait possessed by every human being towards innovative buying behaviour, while actualised innovativeness is concerned with showing actual innovative buying.

RESEARCH OBJECTIVES

Two primary research objectives guided the study. Firstly, to identify and define a set of valid and reliable items that can be used for measuring the level of perceived innovative buying behaviour intend amongst participants and secondly, to identify the characteristics of South African commercial farmers with high levels of innovative buying behaviour intend.

RESEARCH DESIGN AND METHODOLOGY

Research design and sampling

This research design is considered exploratory in nature due to the development of a segmentation model focussing on the commercial farmer market in South Africa. A quantitative approach facilitated the gathering of

relevant data for segmentation purposes. The data provide bases for both segmenting and profiling of the market. The population for this study was defined as all commercial farming operations located within the boundaries of South Africa. An available mailing list of commercial farmers constituted the sampling frame.

Data collection

A mail survey was used for collection of the data while a structured questionnaire served as data collection instrument. A total of 3 000 questionnaires were distributed. By cut-off date, 917 completed and valid questionnaires were collected to form the final sample. This represented a response rate of 30.5%. The characteristics of the sample compared well with known population characteristics and were therefore considered representative. Using the formula presented by Israel (1992), the sample error was therefore estimated to be approximately 2.8%, given a 5% level of confidence.

Measurement of ‘Innovative Buying Behaviour Intend’ and data analysis

The measurement scale proposed by Ailawadi, Neslin and Gedenk (2001) was adopted for measuring innovative buying behaviour intend. The scale consists of three items measured on a 5-point Likert scale, where 1 = do not agree at all, to 5 = definitely agree. The items are:

- When I see a product that is slightly different from the usual, I have a look at it
- I am usually one of the first people to try out a new product
- I like to try out new things and a variety of things

The first step of the scale development involved confirming if items showed internal reliability. This step was deemed important to ensure that the items provide a common measure of the scale to be developed, namely levels of perceived innovative buying behaviour intend. A Cronbach’s alpha was calculated to confirm internal reliability. The closer the alpha value to one, the more internal reliable or consistent the new scale is considered to be. An alpha value of 0.718 was produced. This value is also in line with the suggested level of 0.7 as recommended by Nunnally (1978).

In the next step of constructing the new scale, the ordinal data obtained from the rating of the three items was subjected to an exploratory factor analysis, with principle component extraction and varimax rotation. Principal component analysis is a technique for finding relationships in multivariate data, with the aim of reducing the dimension of the data without serious loss of information (Porkess, 2004). The aim was to use the underlying multivariate correlation that exists between items to produce a new scale measure that could represent perceived innovative buying behaviour intend. As expected, all three items loaded on one factor signifying the emerging of a single new construct dimension. The results are presented in table 1.

Table 1: Exploratory Factor Analysis – Component Matrix

	Component
	1
I am usually one of the first people to try out a new product	.867
I like to try out new things and a variety of things	.849
When I see a product that is slightly different from the usual, I have a look at it	.669

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

The new scale explains 64.0% of the variation on the original item data. The results are presented in table 2.

Table 2: Exploratory Factor Analysis – Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.920	64.001	64.001	1.920	64.001	64.001
2	.722	24.069	88.071			
3	.358	11.929	100.000			

Extraction Method: Principal Component Analysis.

The factor scores or factor loadings produced from the factor analysis are continuous with a normal distribution and are standardised with a mean of zero and a standard deviation of one. These scores represent an index of innovative buying behaviour intend, where higher values represent higher levels of intend. The range of the scale values was used to determine cut-points to form three meaningful groupings or segments of commercial farmers based on their extent of innovative buying behaviour intend. The focus of this study fell in particular on those farmers being classified as having high levels of intend. Further data analyses involved constructing of frequency tables.

RESULTS

Introduction

This section consists of two parts. The first part presents the main characteristics of those farmers that participated in the study as well as the characteristics of the farming units that were under consideration. While this study was not concerned with the characteristics of farming operations *per se*, but with levels of innovative buying behaviour intend amongst farmers themselves, they form relevant points of reference for describing variation in the levels of intend. The second part presents a segmentation of the South African commercial farmer market based on levels of innovative buying behaviour intend.

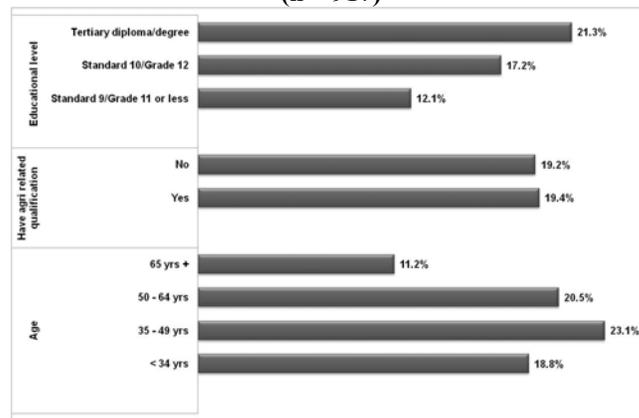
Sample characteristics

The majority of farmers were between the age of 50 and 64 years (42.0%), with a further 29.2% between 35 and 49 years. Farmers also reported varied levels of education. Of the 917 participants, the majority (69.4%) presented stock farming operations. The estimated annual turnover reported varied, with 48.0% having reported turnover in excess of R1 million. While the majority of farming units (62.9%) are operated as sole ownerships, a significant proportion is structured as companies (13.8%) and closed corporations (10.4%).

Segmenting the commercial farmer market based on innovative buying behaviour intend

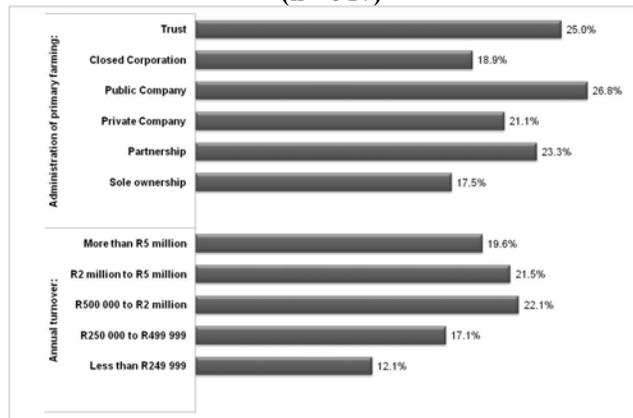
Figure 3 presents the proportions of those farmers with 'high' levels of innovative buying behaviour intend by educational level, having an agricultural related qualification and age groupings. The results show higher levels of innovative buying behaviour intend being associated with higher levels of education (21.3%). Intend also seems to be more associated with farmers in the age groups 35 to 49 (23.1%) as when compared to farmers older than 65 years (11.2%). The results therefore signify that some demographic variables could serve as indicators for explaining variation in levels of intend amongst farmers.

Figure 2: Percentage of farmers with high Innovative Buying Behaviour Tendencies – By Demographics (n = 917)



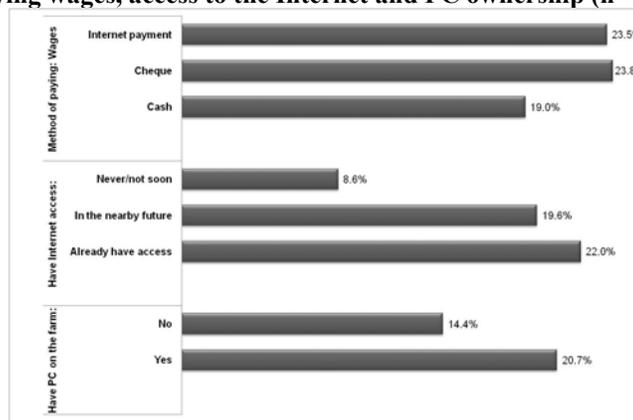
Considering the type of farming operations as possible explanatory variables of innovative buying behaviour intend, the results show higher levels of intend being associated more with farming operations being structured as public companies (26.8%), trusts (25.0%) and partnerships (23.3%) but less so as sole ownerships (17.5%) and closed corporations (18.9%). Farmers in operations with annual turnover of between R500 000 and R2 million are most associated with higher levels of intend, with farmers from smaller farms showing less intend.

Figure 3: Percentage of farmers with high Innovative Buying Behaviour Tendencies – By Firmographics (n = 917)



The behaviour of farmers with ‘high’ levels of intend were also inspected in terms of main method of paying wages, access to the Internet and PC ownership. The results suggest that farmers with high levels of intend are more inclined to have access to a PC (20.7%), have access to the Internet (22.0%) and use the Internet (23.5%) or cheques (23.8%) to pay wages.

Figure 4: Percentage of farmers with high Innovative Buying Behaviour Tendencies – By Main method of paying wages, access to the Internet and PC ownership (n = 917)



CONCLUSION, IMPLICATIONS FOR MANAGEMENT AND RECOMMENDATIONS FOR FURTHER RESEARCH

The study of consumer behaviour is primarily concerned with understanding and predicting buyer behaviour. One focus area that is often of interest and value to marketing practitioners is that of identifying the characteristics of early adopters or buyers in the market. A clear description and understanding of this segment of the market can greatly assist in the development of marketing strategies that can enhance the trail and eventual adoption of new products. Early buyers are crucial in establishing an initial and viable foundation for the success

of a product. This study aimed to further an understanding of innovative buying behaviour intend in the South African commercial farmer market. While this study was limited to showing that type of ownership, annual turnover, access to internet/PC and method of paying wages explain variation in innovative buying behavior, future research can focus on identifying early buying behavior of more specific brands and product ranges within brands. This insight will provide marketing practitioners representing agricultural input suppliers and service providers with a means to develop more effective and efficient marketing programmes. The results showed that farmers in South Africa differed in the extent to which they show innovative buying behaviour intend and that they can be placed along a continuum ranging from lower to higher levels of intend.

REFERENCES

- Ailawadi, K.L., Neslin, S.A. & Gedenk, K. 2001. Pursuing the value-conscious consumer: Store brands versus national brands promotions. *Journal of Marketing*, 65(1):71-89.
- Black, N.J. Lockett, A. Winklhofer, H. & Ennew, C. 2001. The adoption of internet financial services: a qualitative study. *International Journal of Retail & Distribution Management*, 29(8):390-398.
- Bowden, J. & Corkindale, D. 2005. Identifying the initial target consumer for innovations: an integrative approach. *Marketing Intelligence & Planning*, 23(6): 562-573.
- Elliot, G. & Glynn, W. 1998. Segmenting financial services markets for customer relationship: A portfolio-based approach. *The Service Industries Journal*, 18(3):38-55.
- Firat, A.F., Dholakia, N. & Venkatesh, A. 1995. Marketing in a postmodern world. *European Journal of Marketing*, 29(1):40-56.
- Hirschman, E.C. 1980. Innovativeness, novelty seeking and consumer creativity. *Journal of Consumer Research*, 7(3):283-295.
- Hollywood, L.E., Armstrong, G.A. & Durkin, M.G. 2007. Using behavioural and motivational thinking on food segmentation. *International Journal of Retail & Distribution Management*, 35(9):691-702.
- Israel, G.D. 1992. *Determining sample size*. [Online] Available from: <http://edis.ifas.ufl.edu/pdffiles/PD/PD00600.pdf>.
- McDonald, H. & Alpert, F. 2007. Who are “innovators” and do they matter? *Marketing Intelligence & Planning*, 25(5):421-435.
- Nunnally J.C. 1978. *Psychometric Theory*. 2nd ed. New York, NY: McGraw-Hill.
- Parasuraman, A. 2000. Technological readiness index: a multiple-item scale to measure readiness to embrace new technologies. *Journal of Service Research*, 2(4):307-320.
- Roehrich, G. 2004. Consumer innovativeness: Concepts and measurements. *Journal of Business Research*, 57(6):671-677.
- Rogers, E.M. 1983. *The diffusion of innovation*. 3rd ed. New York: Free Press.
- Rogers, E.M. 2003. *Diffusion of innovations*, 5th ed. New York: Free Press.
- Statistics South Africa. 2009. *Census of Commercial Agricultural 2007 (Preliminary)*. Statistical Release P1101. 17 February.
- Walsh, G., Henning-Thurau, T., Wayne-Mitchell, V. & Wiedmann, K. 2001. Consumers’ decision-making style as a basis for market segmentation. *Journal of Targeting, Measurement and Analysis for Marketing*, 10(2):117-131.

ECONOMIC AND LEGAL ASPECTS OF ESTIMATING PUBLIC PROCUREMENT OF GOODS, SERVICE AND WORKS AND POSSIBLE PREVENTION OF CORRUPTION IN SERBIA

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ABSTRACT

Estimating the public procurement value, service and work is one of the contemporary issues with the distinct financial feature in fighting corruption. Economic and legal relations between a procuring party and a bidder and other parties involved, complying with the recommended terms and criteria for assessing the bid are the most important features in the process of public procurement, but also a possible source of conflicts of interest and corruption, which requires constant surveillance, more efficient control and implementation of the modern concept of public procurement using the model of the highly developed European countries. According to the research information procurement has grown significantly, which was registered by monitoring average contract values during the past eight years, thus the average public procurement value in 2011 was 2.5 times higher than in 2006, and higher by a fifth compared to 2009.

INTRODUCTION

Public procurement is a process where the government as the procuring party procures goods and service from other subjects on the market. Nowadays, public procurement has gained considerable significance on national and international level. Governments, as procuring parties, are very desirable for the suppliers, because their demand is enormous, and they are reliable guarantors of payment. Therefore, there is a question of transparency of public procurement, its procedures, and the means for maintaining the competition when bidding for special transactions, such as: procurement of medicines, arms, technological assets etc. Likewise, the aim of public procurement is satisfying the public interest, which can sometimes be controversial and the means for achieving that aim have to be highly developed in order to reduce the number of government's inadequate transactions to minimum. Accordingly, in order to carry out the public procurement process more efficiently with minimum expenditure, and to comply with legal terms at the same time, it is necessary to have well organized apparatus and a system of control to realize these criteria.

Setting up an efficient and legal public procurement system within a local municipality means being well acquainted with and obeying the Public Procurement Act and accompanying regulations, having an adequate organizational solution for the Public Procurement Office within the municipality, standard arrangement of procedures, adequate personnel, well trained employees in charge with public procurement who respect the standards of ethical behavior. Municipal managers, the officials directly involved in the process of public procurement and all the other parties in position to influence the process of bidder selection, are obliged to get acquainted with the public procurement system in the Republic of Serbia and to complete their duties consistently, correctly and expertly. In order to achieve that goal it is necessary to define activities, carriers, duties and responsibilities of all the parties involved in the public procurement process, with the clear, and whenever possible, written instructions.

Serbia has among the last in the South-East Europe standardized and set up the public procurement system. The first Public Procurement Act was passed on 05 July 2002. After five years of implementing the Law, the need arose for the public procurement system adjustment and approach to the experience and solutions practiced in the EU countries, especially in the new member countries. The new Public Procurement Act was passed on 22 December 2008 and it came into force on 06 January 2009.

THE ESTIMATED PUBLIC PROCUREMENT VALUE

The estimated public procurement value must be based on the market research, which involves the review of price, quality, warranty period, maintenance etc. and it has to be valid at the time of launching the process. It includes the total sum charged to the bidder in dinars without VAT. The public procurement value cannot be estimated in a way to avoid the open or restrictive process.

The basis for calculating the estimated public procurement value is determined in the following way:

- If the subject of the contract is purchase, lease or rent, and when the contract period is 12 months or less, the total estimated contract value for the entire period is considered, and when the contract period is longer than 12 months the total estimated contract value includes the estimated value for the first 12 months and the estimated value for the remaining period;
- In case of a contract for an indefinite period, as well as in case where there is uncertainty concerning contract period, monthly estimated contract value is multiplied by 36.

Likewise, in case of periodic contracts, as well as renewable contracts, the estimated public procurement value is determined according to the values of the similar periodic contracts from the previous budget year or from the previous 12 months, adjusted to the expected changes in quantity and value of goods whose procurement is the subject of the contract during 12 months starting from the day of signing the original contract or according to the total estimated value of the similar periodic contracts during 12 months after the first delivery or during the contract period in case that contract period is longer than 12 months.

When calculating the estimated public procurement of service value, the procuring party has to include all the costs the bidders would have relating the service they provide.

With certain services the procuring party takes into account the following sums:

- For the insurance service – premium rate, as well as all the other payments related to the service;
- For the banking and other financial services – reimbursement, commission, as well as all the other payments related to the service;
- For the credit services – total rate value for the repayment period, reimbursement and costs related to credit approval and credit agreement realization, including assessment costs for immovables and movables, insurance premium or other reimbursements related to the means for credit insurance, costs of providing the necessary documentation and other corresponding costs;
- For design, architectural works, spatial planning etc.- reimbursement or commission.

If the procuring party cannot determine the estimated service value because of the contract period length, the service value is estimated in the following way: in case the due date of the contract is determined to 36 months or less, or in case of the indefinite contract period, the total contract value for the entire period is monthly value multiplied by 36.

The estimated public procurement of works value is determined in a way that total works value is the basis for calculating public procurement of works value. When determining the estimated public procurement of works value the procuring party includes in works value the value of all the goods and services necessary for the realization of the public procurement of works agreement. The procuring party is obliged to state separately the value of material, goods and services they provide themselves apart from the estimated value incorporated into the process statement.

However, unlike estimating public procurement of goods, services and works value, when the public procurement subject is shaped after procurement, the procuring party determines the estimated value of each procurement. The estimated public procurement value shaped after procurement includes the estimated value of

each procurement for the time of contract period. It is necessary to point out that in case of qualification procedure, framework agreement and dynamic procurement system, the estimated public procurement value is determined as the value of all contracts appropriated during the candidate list term, framework agreement, that is, dynamic procurement system.

ECONOMIC AND LEGAL ASPECT OF PUBLIC PROCUREMENT

Economic and legal aspects allow the procuring party to refuse the offer on the account of unusually low price. Unusually low price is, from the economic aspect of public procurement, an offered price which significantly deviates from the comparable market price and doubts the possibility of public procurement execution in accordance with the offered conditions. If the procuring party estimates that the offer has an unusually low price, it is obliged to demand a detailed explanation of all its parts from the bidder, especially allegations of building method economy, production or selected technical solutions, extremely favorable conditions for the bidder to complete the agreement, or the originality of products, services and works offered by the bidder. The procuring party is obliged to give the bidder an appropriate deadline for the answer. Similarly, the procuring party is obliged, after receiving the explanation, to verify the relevant elements of the offer, especially to check the bidder's or candidate's completion of obligations that arise from the valid regulations concerning work safety, employment and work conditions, environment protection and intellectual property protection, and can demand from the bidder to convey adequate evidence.

It is necessary to respect certain principles in the public procurement process:

- efficiency and economy
- providing competition
- transparency of public procurement procedure
- bidder equality and
- environment protection and providing energy efficiency

In the course of public procurement the procuring party is obliged to supply the goods, services or works of the adequate quality having in mind the purpose, application and value of the public procurement, and to provide the realization of the public procurement process as well as assigning contracts in due time and in a proper way, with minimum costs related to the public procurement process and realization. Also, in the course of public procurement the procuring party is obliged to provide the best possible competition so that the procuring party cannot restrict the competition, and cannot prevent any bidder from taking part in public procurement process by using unjustified negotiation procedures, discriminating conditions, technical specifications and criteria. One of the procuring party's obligations is to make the public procurement procedure public and transparent. The procuring party is obliged to provide equal conditions for all the bidders in each public procurement stage, and cannot determine the conditions which would discriminate bidders on national, territorial, material or personal level, nor discriminate them according to the classification of activities performed by the bidders. Likewise, the procuring party is obliged to provide goods, services and works which do not endanger the environment, that is, which have a minimal influence on the environment, and provide adequate energy consumption reduction – energy efficiency, namely overall costs of public procurement subject life-cycle.

The criteria for estimating the offer are:

- the most favorable offer in economic terms or
- the lowest bid

The criterion for the economically most favorable offer is based on different criteria elements depending on the public procurement subject, such as: the offered price; discount on the procuring party's price list; delivery time or the time for realizing services or works within the minimal acceptable interval which does not compromise the quality, as well as the maximal acceptable interval; current expenses; cost-effectiveness; quality; technical and technological benefits; ecological benefits and environment protection; energy efficiency; post-purchase service and technical support; warranty period and types of warranties; spare parts responsibilities; post-warranty maintenance; quantity and quality of the personnel; functional characteristics etc.

Elements of the economically most favorable offer criteria can be divided into subcriteria. Participation prerequisites cannot be determined as criteria elements. To each criteria element, or the subcriteria, the procuring party assigns relative significance (ponder) in the bidding documentation, so that the total is 100 ponders. The selection of submitted offers using the economically most favorable offer criteria the procuring party conducts by ranking them on the basis of ponders determined as the criteria elements.

According to the Public Procurement Office, the Republic of Serbia, report (28 March 2012) for the period 01 January – 31 December 2012, procuring parties submitted reports for 111,249 procurement, the total value of 293,324,810,000 dinars. The number of recorded signed contracts has decreased during the last nine years, so that their number in 2011 was less than a half (48%) of the total number of signed contracts in 2003. At the same time, the total value of the recorded procurement has increased, and it was tripled in 2011 compared to 2003. The two mentioned tendencies indicate a significant procurement growth, registered by monitoring the average contract values from the previous eight years. (Table 1).

Table 1: Comparative survey of closed public procurement contracts per year

Year	2002 *	2003	2004	2005	2006	2007	2008	2009	2010	2011
Total number	71.2 92	231.66 1	215.81 5	148.75 8	152.48 5	122.58 7	109.910	91.992	83.693	111.24 9
Total value (thousands of dinars)	13.9 28.2 72	98.777 .652	109.28 2.212	124.75 3.207	168.91 4.947	187.55 9.752	234.028 .744	190.655 .028	273.05 5.306	293.32 4.810
Average value (thousands of dinars)	195	426	506	838	1.108	1.530	2.129	2.073	3.263	2.637

*The reports include the period 13 July – 31 December, without local municipality

Source: The Public Procurement Office, the Republic of Serbia

The average public procurement value in 2011 was 2.5 times higher than in 2006, and higher by a fifth compared to 2009. Table 1 shows that public procurement growth has increased during the last two years. As for the procurement subject, in the structure of the total procurement value in 2011, goods dominate with 46%, followed by works (33%) and services (21%). (Table 2).

Table 2: Public procurement in 2011. (the type of subject)

The type of subject	Procurement value (thousands of dinars)
Goods	133.425.933
Service	62.009.306
Works	97.889.571

Source: The Public Procurement Office, the Republic of Serbia

From the total number of registered public procurement contracts, 99% of contracts were issued to domestic bidders, and 1% to bidders from the EU member countries. (Table 3).

Table 3: High value public procurement issued to bidders from Serbia, the EU and countries outside the EU in 2011

Country of the bidder	Number of issued contracts	Agreed value (thousands of dinars)
Serbia	35.056	246.414.942

The EU	116	2.620.972
Countries outside the EU	94	3.127.278

Source: The Public Procurement Office, the Republic of Serbia

When planning public procurement, as well as in its process or during the realization of its contract, the procuring party is obliged to undertake all the necessary measures to prevent corruption, to detect it beforehand, so as to remove or reduce harmful consequences and to punish the participants in the process of corruption. If it is not possible to realize proper communication, because of the circumstances in the case, the person in charge of public procurement, or other parties, are obliged to make a report, or record the taken actions in some other way. The executive and the procuring party's official are obliged to give all instructions to the public procurement personnel in written, or through emails. Public procurement personnel must refuse following the instructions from the authorized party if they do not comply with the regulations. Also, members of the personnel who refuse to follow the instructions cannot be transferred to other positions nor dismissed during the 12 month period starting from the day of refusal, on condition they work in accordance with the law.

CORRUPTION PREVENTION

The Public Procurement Office has to make a plan for fighting corruption in cooperation with the relevant Government Agency and deliver it to the Government for ratification. The procuring party whose annual estimated public procurement value is more than 1,000,000,000.00 (a billion) dinars, has to, according to the plan, create their own internal plan for corruption prevention in the process of public procurement. The procuring party delivers the internal plan within three months from the ratification of the plan. Likewise, the procuring party has to draw up an act which would closely regulate the public procurement process within the procuring party, especially the procurement planning (criteria, rules and ways to determine the public procurement subject and its estimated value, analysis and market survey), planning responsibility, aims of public procurement process, the manner of completing the tasks in the process, the methods for providing competition, realization and control of public procurement, the methods for observation of public procurement contract realization. The content of the act determines the Public Procurement Office. If the Public Procurement Office confirms the inconsistency of the internal act with the law, it is obliged to inform the procuring party and to give suggestion as how to adjust it as well as the interval in which to do it. In case the procuring party does not adjust the act in the given interval, the Office will inform the Agency which monitors the procuring party's dealings and State Audit Institution and start prosecution in the Constitutional Court.

The procuring party whose annual estimated public procurement value is more than 1,000,000,000.00 (a billion) dinars also has to form a special service that would control planning, process conducting and public procurement realization. The service controls appropriateness of particular public procurement planning from the point of view of needs and the procuring party's activities, criteria for drawing up technical specification, methods of market analysis, the validity of criteria for issuing contracts, and especially the quality of delivered goods and offered services, or conducted works, stock and the use of goods and services. Apart from this, the service undertakes other steps with the aim of affirming the facts in single public procurement procedures, that is, in the public procurement contract. The service reports about the audit to the procuring party executive and the Agency which monitors the procuring party's dealings, giving its recommendation. The internal act arranges business methods and the organization of the service. All the procuring parties planning or conducting public procurement with the total value more than the border amount of 1,000,000,000.00 (a billion) dinars have liability.

The party which has taken part in planning the public procurement, preparing tender documentation or some of its parts, and a related partaker cannot appear as bidders or bidder subcontractors, nor can liaise with bidders or subcontractors in the process of bid preparation. The procuring party will refuse the offer if the bidder, or the applicant, has directly or indirectly given, offered or had prospect of any gain, tried to gain confidential information, or to influence the procuring party in any way during the public procurement process. Methods for asserting the circumstances are determined by the internal plan, where the procuring party immediately has to

take steps set in the internal plan and notify the authorized Government agencies. Public procurement staff or any other employee hired by the procuring party, as well as any interested party with the information about corruption in public procurement process has to notify the Public Procurement Office, the authorized Government agency that prevents corruption and the relevant prosecutor's office. Those people cannot be fired nor transferred to other positions for reporting public procurement corruption, and the procuring party has to ensure them complete protection.

If the procuring party realizes public procurement process whose estimated value is more than 1,000,000,000.00 (a billion) dinars, the process is under supervision of a civil supervisor. The civil supervisor can be an eminent public procurement expert or an expert in any field associated to public procurement. Similarly, the civil supervisor can be an association engaged in public procurement, corruption prevention or conflict of interest. However, the civil supervisor cannot be a person employed or otherwise engaged by the procuring party, or the entity linked to the procuring party, nor a person that is a member of a political party. Terms and criteria for appointing a civil supervisor and defining practice manner are determined by the Public Procurement Office. The Public Procurement Office appoints the civil supervisor until the date set in the annual procurement plan as the outline date for starting public procurement process at the latest, or 30 days from the admission of the procurement plan. The procuring party cannot start the public procurement process before the appointment of the civil supervisor. The civil supervisor has to monitor public procurement process and has a constant access to the procedures, documentation and communication of the procuring party with other interested parties, that is, the bidders. At the same time the civil supervisor has to report to the National Assembly financial board, that is, to the Assembly of the autonomous province or the local municipality, and the Public Procurement Office about the realized public procurement process within 20 days from realizing contract or making a decision to stop the process. If the civil supervisor has a reasonable doubt about the validity of the public procurement process, he will inform the authorized agencies and the public. Civil supervisors are not entitled to any reward for their work.

The conflict of interest exists when the relation between the representatives of the procuring party and the bidder can influence impartiality of the procuring party when making a decision in the public procurement process, that is:

- if the representative of the procuring party or a person linked to it participates in the bidder's offer;
- if the representative of the procuring party or a person linked to it possesses more than 1% of the stake, or the bidder's shares;
- if the representative of the procuring party or a person linked to it works for the bidder or has any business association with them.

The procuring party cannot close the public procurement deal if there is a conflict of interest. The person in relation with whom there is a conflict of interest cannot be a subcontractor to the bidder who was issued the contract, nor the member of the group of bidders who were issued the contract. The Republic Commission for the Protection of Rights in the Public Procurement Procedures will upon the procuring party's request grant closing the deal, on condition that the procuring party proves that a ban would cause significant difficulties in work or the business disproportional in comparison to the public procurement, it would jeopardize the Republic of Serbia's interest, that they have taken all the steps towards diminishing negative consequences, that the other bidders do not comply with procedure requirements, that the discrepancy in prices after ranking their offers is 10% higher or that the selected bidder has 10 more bidders. The decision is announced on the procuring party's and the Republic Commission for the Protection of Rights in the Public Procurement Procedures website and the Public Procurement Portal.

Possible corruption prevention in public procurement can be achieved through higher transparency and competition, efficient control and significant sanctioning of rule breaking, and all that can be realized through implementation of modern monitoring concepts and public procurement control present in European countries where exists coordination between all institutions in the public procurement system. For example, special attention should be paid to the possibility of control efficiency in public procurement procedures reliance on the external and internal audit institutions. Similarly, it is possible to decrease the number of bargains, apart from the implementation of efficient control by the internal and external audit and change of regulations in order that every procuring party claiming there is only one bidder on the market that can satisfy the actual need has to announce that in the public information service and official gazettes and journals prior to closing the deal.

Parallel with these measures it is necessary to give much more significant and precise role to different regulatory bodies (the Public Procurement Office, the Commission for the Protection of the Rights, the Budget Inspection, the State Audit Institution etc.)

CONCLUSION

The field of public procurement is a very delicate transaction field, especially for subjects who righteously apply to tenders, behave properly, and follow the rules of free competition. However, situations where the procuring party decides to reject a bidder on a discriminating reason are frequent, and a quality regulation that has to be consistently and efficiently applied to the mentioned cases is necessary. Public procurement is not a purpose in itself, but means for achieving the goal, and genuine public procurement control is not control of obeying the formalities, but control of whether the procurement was necessary, and if so, whether the purpose of the procurement was fulfilled.

The protection of the procuring party's rights and the public interest is one of the most subtle and most delicate public procurement areas, because it has a function of providing legal security for all the participants in the public procurement procedures. Therefore, good acquaintance with the legal mechanism of right protection is equally important for all the participants in the procedures. To begin with, being well acquainted with and understanding the right protection process, the procuring parties and bidders have the opportunity to manage it better. The bidders have to make it a habit to react immediately to any inconsistency and flaws in the public procurement procedures, which are not always a reflection of the procuring party's bad intentions, but sometimes a result of an oversight or insufficiently trained staff in the domain of public procurement. It is also important that the procuring parties make it a habit to approach each objection equally, to analyze each of them extremely meticulously and earnestly, in order to solve the problem at the lower level with a minimal time and other resources consumption. On one hand, the bidder must be protected from possible irregularities or the procuring party's illegal activities, in that respect that those activities as a consequence might have law offense, in other words, causing damage. On the other hand, public assets are used in the public procurement procedures, therefore, protecting the public interest must ensure their rational and efficient use.

REFERENCES

- Auriol, E. (2006) *Corruption in procurement and public purchase*, International journal of industrial organization, god. 24, br. 5, s. 867–885.
- Bojović, P. and others. *Makrofinance, Čigoja štampa*, Belgrade, 2009.
- Bojović, P. and others *Principles of mikroeconomics, Žig*, Belgrade, 2010.
- Bojović, P. and others. *Mikrofinance, Žig*, Belgrade, 2010.
- Dimitri, G., Piga, G. & Spagnolo, G. (Eds)(2006) *Handbook of procurement*, Cambridge, USA . and others: Cambridge UP.
- Report of the Public Procurement of the Republic of Serbia in 2011.
- Knežević, B., (2007) *E-procurement in the Western Balkans-Ellectraweb project*, „ *European legislation*”, Belgrade, Institute for International Politics and Economy,no. 19–22,p. 37–41
- Lambert-Mogiliansky, A. & Sonin, K. (2006) *Collusive market sharing and corruption in procurement*, Journal of economics and management strategy, god. 15, br. 4, s. 883–908.
- Marija Veličković, *Guide negotiated public procurement*, JP Službeni glasnik, Belgrade, 2012.
- Nadežda Mitrović-Žitko, Đorđe Pavlović, *Lexicon of public procurement*, the Institute for Economics and Finance, Belgrade, 2010.

Nadežda Mitrović-Žitko, Đorđe Pavlović, *Public Procurement in Serbia - the practical application*, the Institute for Economics and Finance, Belgrade 2010.

"Background" to improve the system of public procurement in Serbia" studies, the OSCE and the Public Procurement, 2006"

"Redefining the role and tasks of the procurement in accordance with European standards and best practices" studies, OSCE, 2007.

Stiglitz, J. E., (2004/1999), *Public Economics*, Faculty of Economics, Belgrade, p.203–204

„Structures and facilities of the highest institution in the system of public procurement in the member states of the European Union", SIGMA No. study 40, Paris 2007.

SUBJECTIVE EXPERIENCES IN ADVENTURE MOTORCYCLING: EXPLORING MARKETING POTENTIAL

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ABSTRACT

Along with the steady growth in adventure tourism comes a need to gain a better understanding of how participants experience adventure activities. It seems important to investigate their experiences, not purely from a customer satisfaction perspective but also at a deeper more personal and subjective level. This would allow adventure providers to gain a greater understanding of the factors that would provide adventure tourists with a rewarding experience. This study drew on the grounded theory approach of coding sorting and analyzing through open, axial and selective coding to explore the subjective experiences of a group of nine adventure motorcyclists who participated in a tour through parts of South Africa, Botswana and Namibia. The central idea that emerged from the analysis revolved around the expectations and realizations of the participants. These are divided into positive, neutral and negative expectations and realizations. The majority of these are positive and include experiencing the wilds of Africa, overcoming riding challenges and camaraderie. The neutral experiences involve knowing what to expect and taking it as it comes, while the negative expectations and realizations include mechanical problems, injuries and uncertainty regarding riding ability.

INTRODUCTION

Adventure tourism is a “growing segment of outdoor recreation” (Meisel & Cottrell, 2003, p. 393) and yet limited research seems to have been undertaken in order to gain an understanding of its participants (Pomfret, 2006). The focus of many researchers in the field of adventure tourism has been narrow and has often neglected to explore the individual experiences of participants. Weber (2001) points out that a comprehensive understanding of adventure tourism needs to involve a consideration of the “individuals’ subjective experience and perception” (p.361) of adventure activities. She goes on to indicate that it is essential to make use of qualitative research methods when exploring individual experiences and perceptions of adventure tourists. This qualitative study focus on the subjective expectations and realizations of a group of adventure motorcyclists who participated in a 7000 km tour through parts of South Africa, Botswana and Namibia. A grounded theory analysis was conducted on transcripts of both individual and focus group interviews in order to empirically explore the experiences and perceptions of the participants. The results of this study could provide valuable insights that would help marketers and adventure providers to determine the commercial marketability and feasibility of this extreme kind of tourism.

RATIONAL AND PROBLEM STATEMENT

The lack of research aimed at exploring the subjective experiences of adventure motorcyclists has left a gap in the understanding of their motives, expectations and the manner in which these are realized. This lack of understanding may lead to adventure providers not meeting their customers expectations and perhaps missing opportunities to offer other suitable tourist orientated experiences to those interested in adventure. Adventure marketers need to have a greater insight into the expectations of their potential customers if they are to successfully design activities that will prove to be satisfying. A better understanding of the expectations of adventure motorcyclists will also assist in determining more accurately the commercial potential of this type of

tourism. A limited understanding of the factors that serve as motivation for participants in adventure activities may leave the potential inherent in this market segment unexploited. An exploration of the expectations and experiences of adventure tourists will contribute to an understanding of what motivates people to participate in adventure activities.

AIMS AND OBJECTIVES

This study aimed to explore the subjective experiences of adventure motorcyclists by determining the expectations and realizations of an adventure tour through parts of South Africa, Botswana and Namibia. It is hoped that the insights provided by this exploration will provide adventure providers with a greater understanding of the factors which motivate those who participate in adventure activities. These insights will make a contribution toward an understanding of how to better market tourist activities to this tourism market segment.

A REVIEW OF THE LITERATURE

In order to gain a greater understanding of the framework in which the expectations and realizations of a group of adventure motorcyclists was explored it seems important to consider various concepts and definitions related to marketing, tourism in general and adventure tourism in particular.

Marketing

Currently, marketing must not be understood in the old sense of making a sale – “telling and selling” – but in the new sense of satisfying customer needs (Kotler & Armstrong, 2011, P.19). Armstrong et al. (2012) defined marketing broadly as a “social and managerial process by which individuals and organizations obtain what they need and want through creating and exchanging value with others” (p.9). Thus, marketing is defined as the “process by which companies create value for customers and built strong relationships in order to capture value for customers in return. Marketing thus, should be the cornerstone of any commercial adventure tourism undertaking or activity.

Tourism

Mills and Morrison (1992) propose that the term tourism is “given to the activity that occurs when tourists travel” (p.9) and involves all related activities “from the planning of the trip, traveling to the place, the stay itself, the return, and the reminiscences about it afterwards” (p.9). They indicate that implicit in the term are all undertakings relevant to the trip, these include “purchases made, and the interactions that occur between host and guest” (p.9). Leiper (1995) adopts a broader perspective and suggests that “tourism can be defined as the theories and practices of traveling and visiting places for leisure and related purposes” (p.20). Middleton et al. (2009) seem to support the arguments of both Mills and Morrison and Leiper when they pose the question “what, if any, are the differences between tourism and travel, used on their own as single terms, and travel and tourism used as a combined term?” (pp. 8-9).

Adventure tourism

The term “adventure” is evocative for many people – images and associations flood into the mind at the mention of the word. Words such as thrilling, awe-inspiring, risky, fear, excitement and adrenaline are often used when reflecting on adventure activities (Swartbrook et al., 2003). Scott (2007) indicates that there is no real consensus among academics regarding a definition of adventure tourism. Adventure does not need to involve physical challenge but can include the “mind and spirit” (Hopkins & Patman, 1993). Hopkins, Putman and Walle (1997) propose that adventure tourism involves the “quest for insight and knowledge into the unknown”. Edginton et al (2001) include fitness, environmentalism, multiculturalism, and travel in their definition of adventure tourism. Priest (2001) proposes that their needs to be an uncertain outcome in order for an activity to qualify as an adventure.

Smith and Jenner (1999) are of the opinion that the essence of adventure tourism needs to involve a sparsely populated, remote region with limited facilities. Muller and Cleaver (2000) argue that an adventure tourism activity needs to be characterized by “high levels of sensory stimulation” (p.156) that normally involves physically demanding experiences. Grant (2001) points out that an essential and distinguishing characteristic of adventure tourism is the requirement of planning and preparation.

Morgan (1998) proposes that the adventure tourism industry typically offers the tourist a singular “experience, often in an environment with real hazards” (p.7). Swartbrook et al. (2003) acknowledges that there is clear overlapping of adventure tourism and other forms of tourism in general but points out that adventure tourism involves various distinctive “attributes that set them apart from other forms of tourism markets” (p.59). Adventurers typically take risks and invite new experiences and mental and physical challenges.

Distinguishing between hard and soft adventure

Flucker and Turner (2000) indicate that it is essential to recognize the extent of the risk involved in the adventure activity when describing or defining adventure tourism. It seems important to consider the distinction between hard and soft adventure when seeking to establish a definition of adventure tourism.

Hard adventure involves activities that require specialized skill and have an element of high risk associated with them. Soft adventure, by contrast, has only a perceived risk and involves limited skill (Hill, 1995). The actual or objective risk associated with a particular activity is related to the actual “number of accidents reported”, while “subjective risk is the number of risks perceived by” participants. (Flucker & Turner, 2000, p.381).

Adventure motorcycling could be considered to be a hard adventure activity. Scott (2001) proposes that adventure motorcycling “involves a challenging journey into the wilderness or a significantly unexplored country” (p.7). The motorcycle is considered a tool that allows the adventurer to explore exotic places and escape the safe world of the predictable (Scott, 2001). There are obvious risks involved in adventure motorcycling and the outcome is seldom predictable. Scott (2001) points out that adventure motorcycling demands a certain amount of commitment from participants.

The adventure tourist

Due to the varied nature of adventure tourist activities, defining the adventure tourist and what sets him or her apart from other tourists is a tricky endeavor. Notions of taking risks and relishing challenge would seem to have to form an important part of a definition of an adventure tourist but clearly this cannot be where the definition ends. One line of thought, according to Cater (2000), in relation to the growth of this form of tourism, is that modern-day living and work life lack clear meaning. This encourages people to search for meaning and fulfillment through active participation in leisure activities and tourism, seeking out “.... a deep embodied experience unavailable in everyday life” (p.51).

RESEARCH DESIGN AND METHODS

The philosophical worldview adopted in this study is closely allied to the social constructivist worldview. In a social constructivist worldview the objective of research "is to rely as much as possible on the participants' view of the situation being studied" (Creswell 2009, p. 9). The meaning inherent in a particular situation is commonly determined through "discussion or interaction with other persons" (p.9.). In this worldview the generation of meaning is invariably social and results from "interaction with a human community" (p.9.). Focus group interviews were principally used as a data collection method during this study in order to explore "multiple viewpoints or responses" concerning a specific issue (De Vos *et al.* 2009, p. 300). The emphasis was to uncover a "socially constructed meaning of reality as understood by an individual or group" (Guo & Sheffield 2007, p. 675). The data analysis of the focus group interview transcriptions was undertaken using the grounded theory method of coding, sorting and analysing.

The process of analysing interviews held with participants in the adventure tour

Open, axial and selective coding techniques were employed in the coding, sorting and analysis of the transcripts of the interviews held with the motorcyclists who participated in the adventure tour.

Open coding. De Vos *et al.* (2009) propose that open coding involve the “naming and categorising of phenomena through close examination of the data” (p.341). This basically involves “breaking down the data and identifying concepts embedded within individual statements” (Wasserman *et al.*, 2009, p. 359). Transcripts of the interviews that were held with the adventure tour participants were coded using Atlas.ti. Once this initial labelling had been done, and through a process of constant comparison, codes that contained similar central features or characteristics were grouped together to form more abstract higher-level categories. For instance, the following descriptive labels or lower-level categories; “happy customers”, “promote the experience”, “good food”, “awesome terrain”, “learn how to ride”, “get closer to nature”, “introspection”, “experience Africa”, “beautiful scenery”, “camaraderie”, and “see elephants” were grouped under the higher-level code “positive expectations” because they all had positive characteristics that the riders seemed to be looking forward to as a central idea or characteristic.

All codes and categories identified during the initial stage of the open coding process were grouped together in “code families” using Atlas.ti. These code families were printed and then arranged in a table that has the following headings: category, codes, quote to support creation of category and comment. This helped to establish groundedness and at times highlighted the necessity to regroup or rename codes/categories.

Table 1: A portion of the table used to sort codes into categories during the open coding phase

Category	Code	Quote to support category creation	Comment
Positive expectation	Awesome terrain	"Everything that I expected, the terrain is awesome, it is really what I wanted to do"	'Terrain' could mean scenery or could be the roads and paths the motorbikes road on?
	Get closer to nature	"...spend some time closer to nature"	Obviously because of the off the beaten track nature of adventure motorcycling.
	Introspection	"I think I really relaxed and am with peace inside, and finding this is for me"	First quote is more of a realisation.
"The adventure is supposed to bring me to a state of mind where I will be much in contact with myself than I used to be."		'contact with myself', through introspection, challenges, being out of comfort zone?	

Axial coding. Axial coding is a process that involves reassembling data in new ways after it has been fragmented during the open coding phase of the data analysis process (De Vos *et al.*, 2009). A thorough analysis was performed around a single category at a time primarily with reference to the coding paradigm outlined by Corbin and Strauss (1990). Causal conditions that gave rise to the occurrence of the category/phenomenon were investigated, the phenomena themselves were established, attributes of the context were explored by examining the set of facts or circumstances that surrounded the phenomena, intervening conditions were investigated, action/interaction strategies that were formulated by the actors to handle the phenomena were explored and the consequences of these strategies were taken into consideration during this phase of coding.

For instance, intense analysis was performed around the higher-level code/category/phenomenon, “positive expectations”. Some of what caused this phenomenon to come about were the anticipation of “spectacular terrain” and the opportunity of “learning how to ride” in challenging settings. The circumstances that surrounded this phenomenon was the motorcycle adventure tour itself. The action/interaction strategies that students employed to handle the phenomena involved adopting an enthusiastic attitude and positive approach toward the undertaking. The consequences of these strategies were that the riders “looking forward to the tour” and “having a positive attitude” toward the anticipated challenges.

Selective coding. The main idea that emerged during the open and axial coding phases were the expectations and realizations of a group of nine motorcyclists who took part in a twenty one day adventure motorcycle tour through parts of South Africa, Namibia and Botswana. All other categories were related to this core concept. The process employed to refine the description of the expectations and realisations of the motorcycle adventure tour group made use of several overlapping steps. These involved an explication of the story line, in which a general description of the expectations and realisations is outlined. Evans (2007) proposes that it is while explicating the story line that the researcher develops a story that “brings together the majority” of the elements uncovered during the research. Ideally only one core category should emerge (p.202).

A relationship between categories at a dimensional level as well as the way in which the categories relate to the core category was then outlined. Evans (2007) suggests that this step involve “asking questions and making comparisons” (p.202) of and between the categories and codes uncovered.

The relationships between categories were validated against the data by extracting salient quotations from transcripts of the interviews held with the group of adventure tourists incorporating them in a descriptive passage. The previously mentioned steps were not seen as distinct from one another but together allowed for the development of an analytic story. This analytic story was outlined in a descriptive passage

Table 3: Portions of the results of the selective coding process

	Central idea: The realizations and expectations of a group of adventure tourists.
Explicating the story line	The central idea that emerged revolved around the expectations and realizations of a group of nine motorcyclists who took part in a twenty one day adventure motorcycle tour through parts of South Africa, Namibia and Botswana. The motorcycles were accompanied by a backup four by four vehicle and a mobile kitchen. All participants slept exclusively in one man tents at various locations along the rout. Participants of the tour indicated positive, neutral and negative expectations...
	Some of the riders were also looking forward to improving their riding Many of the participants felt as though the fact that the adventure was going to be shared by others would likely lead to bonds being established between the riders.... Some of the riders expected that they and others would fall off of their motorcycles This seemed to result in some fear and excitement but also increased their expectations of adventure.
Relating categories at a dimensional level (extracts)	The expectations indicated by the participants ranged from positive to negative. Positive expectations were more dominant and there were also a few expectations that were neither positive nor negative, these could be termed neutral. The African terrain provided participants with predominantly positive expectations but the rough riding conditions resulting from this terrain ...
Relating all categories around the core category (extracts)	Positive expectations were principally centered on the spectacular African terrain and wildlife, learning how to ride in challenging conditions and getting to know oneself as a consequence. The negative expectations were mainly centered on the anticipation of mechanical problems and doubts regarding the various riders’ riding ability. Neutral expectations were mainly due to knowing what to expect and taking every moment as it comes.

Validating those relationships against the data	<p>Participants indicated that they were expecting the African terrain to be impressive. The following quotes relate to expectations of the African wilderness:</p> <p style="padding-left: 20px;">“...the terrain is awesome, it is really what I wanted to do”.</p> <p style="padding-left: 20px;">“...expected to see a lot of elephants”.</p> <p>Riding a motorcycle in challenging off road conditions emerged as a theme. The following quotes support this:</p> <p style="padding-left: 20px;">“Learning how to ride a motorbike”</p> <p style="padding-left: 20px;">“A little concerned about the guys on the motorcycles seeing that we have some foreigners”</p> <p>Neutral expectations were indicated by a participant who stated that he had "been through these places before so I know what to expect". Another stated that he “didn’t have any specific requirements”. Once again neutral expectations were expressed in the following statement: “I am not having any expectations about anything, time to reach a certain point. Were supposed to go further, we're not going further. I don't have expectations of what's going to happen and where to go and when to go Day by day, although there is a loose rotor, but it is a day by day experience”.</p> <p>Negative expectations centered mainly on mechanical problems and riding ability:</p> <p style="padding-left: 20px;">"I was a little bit concerned about the guys on the motorcycles seeing that we have some foreigners, I was scared that they won't be able to handle the dirt or the sand road"</p> <p>Introspection emerged as one of the themes:</p> <p style="padding-left: 20px;">"I think I really relaxed and am with peace inside, and finding this is for me"</p> <p>The positive realizations involved beautiful scenery, riding ability, introspection and camaraderie:</p> <p style="padding-left: 20px;">“The food I can't complain about I know I only expect good food”</p> <p style="padding-left: 20px;">"The food is great, and the company is great"</p> <p style="padding-left: 20px;">"...the sand was my biggest fear and I really believe I overcame that fear"</p> <p style="padding-left: 20px;">"Everything that I expected, the terrain is awesome, it is really what I wanted to do"</p> <p>Negative realizations involved mechanical problems, injuries and not being able to complete the tour:</p> <p style="padding-left: 20px;">"...got hurt a little and could not complete the course, and is a bit disappointed about that."</p> <p style="padding-left: 20px;">"Expected to see a lot of elephants (only saw one), the rest is fun"</p> <p style="padding-left: 20px;">"No bikes must break anymore."</p> <p style="padding-left: 20px;">"Did you think it would happen before we came? Why not.. Mechanical things break"</p>
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Filling in categories and reflections. The expectations and realizations of participants can be divided into three different sections, positive, negative and neutral. The prospect of exploring the wilds of Africa contributed significantly to the positive expectations of the group of adventure motorcyclists. This resonates with ideas of freedom, escape, exploration and adventure. Weber (2001) points out that traditionally adventure has been allied to the “exploration of foreign, faraway places to search for new land, wealth, and scientific advances” (p.363). Much of the notion of adventure being associated with the exploration of far off places seems to remain part of the mindset of the modern day adventure tourist. Meisel and Cottrel (2003) argue that “perceived freedom” (p.393) is an integral part of many leisure activities. This seems to be particularly true of leisure activities that have an adventure component associated with it. Perhaps exploring the African wilderness, with its spectacular natural beauty and undeveloped rural areas, promises an experience that is free from the mundane restrictions of a more developed society.

The riding challenges that the motorcyclists would encounter in Africa’s untamed natural environment were generally regarded as a positive expectation. Implicit in these riding challenges is the notion of risk. An adventurer’s desire to be part of an adventure activity may be dampened if there is no risk involved (Weber, 2001:361). A significant positive realization experienced by some of the riders involved overcoming the riding challenges and the enjoyment experienced when riding over rough terrain. This is inline with Flucker, and Turner’s (2000) assertion that an adventure tourist would experience an activity most favorably if he or she was “ able to match the degree of risk with his or her personal level of competence” (p.381). The various riding

challenges seem to present the motorcyclists with an uncertain outcome, they could not predict with certainty how they were going to deal with the rough riding conditions. The desire to achieve an uncertain outcome forms a significant part of the challenge that is inherent in many adventure activities (Morgan, 1998). These activities invite participants to pit their abilities against risky endeavors and in so doing attempt to overcome the various challenges associated with the activity. Participants self efficacy is directly proportional to the sense of control over the activity that they experience. It is interesting to note that participants perceive less risk in adventure tourism activities that are “voluntary, under personal control or undertaken as part of a group” (Morgan, 1998, p.5). Participants will typically only participate in an activity if they consider the risks associated with that activity to be acceptable. Morgan (1998) proposes that an unexpected outcome is often the result of a participant having an inaccurate perception of the level of risk involved in a particular activity. Physical injury, a negative psychological experience, fear or embarrassment could result from these inaccurate perceptions and unexpected outcomes. Injuries and the inability to complete the trip were some of the negative realizations experienced by the adventure motorcyclists. This is inline with Morgan’s (1998) assertion that negative experiences or realizations could be the result of an unexpected “accident, close call or mishap” (p.2). He goes on to point out that it is not altogether surprising that there is a potential for accidents given that participants in adventure tourism activities with limited skill are exposed to “conditions of high adventure” (p.2). Perceived risk is lower among participants in an adventure activity who have higher levels of competency associated with a particular activity (Morgan, 1998). Many of the more neutral expectations and realizations were expressed by riders who knew what to expect. Their previous experiences of similar activities allowed them to relax more and take each moment as it came. These riders did not seem to have the same level of fear for the unknown and did not consider the outcome of the adventure activities to be particularly uncertain.

Introspection and the opportunity to gain a better understanding of oneself emerged as a positive expectation. This seemed to be partially as the result of being alone on a motorcycle and partially due to being out of a comfort zone. Gaining some sort of insight serves as motivation for many individuals who participate in adventure activities (Weber, 2001). Often a participant would seek “risk for its own sake” (p.363) as well as for various emotional payoffs that result from the experience.

Meisel and Cottrell (2003) indicated that participants in adventure activities expected greater levels of excitement and surges of adrenaline if they lacked experience in the activity. Along with experience comes a more realistic approach that involved meeting people, enjoyment and the appreciation of nature. This could partially account for the fact that many of the participants in this research felt as though the fact that the adventure was going to be shared by others would likely lead to bonds being established between riders. This would lead to camaraderie and many pleasant social interactions. The sense of camaraderie may also be as the result of sharing the experience of talking a risky endeavor and being together in a relatively uncomfortable environment with limited facilities.

Mechanical problems emerged as a significant negative expectation and realization. Even though mechanical breakdowns were anticipated they can still be viewed as part of the uncertain outcome that seems to be a significant component of an adventure activity. None of the riders, even the more experienced, could anticipate exactly what mechanical problems would occur. It is interesting to note, however, that the realization of these problems were typically met with a kind of pragmatic resolve. They even seemed to provide bonding opportunities, perhaps because they made the adventure seem more authentic and encouraged participants to stand together. This resonates with Green and Chalip’s (1998) investigation related to sport tourism where participants considered themselves to be part of a subculture. They argue that the subculture element appeared to be “a source of mutual understanding, a basis for camaraderie” (p.280). Perhaps adventure motorcyclists are also inclined to see themselves as a subculture or exclusive group, a little separate from the more conventional.

IMPLICATIONS

The purpose of this study was to explore the subjective experiences of a group of adventure motorcyclists in order to gain a better understanding of their motives, expectations and the extent to which and the manner in which these expectations were realized. An understanding of the subjective experiences of adventure tourists will better enable tour operators and marketers to appreciate the kinds of activities that will appeal to this particular

type of tourist. This appreciation will place them in a better position to design adventure tours that would contribute to the positive realizations of their clients.

An understanding of the subjective experiences of adventure tourists would also help to improve the definition of this particular tourist activity and distinguish it from other forms of tourism. This distinction may also extend to the various types of adventure activities and help to articulate the distinction between, for instance, hard and soft adventure.

An understanding of the factors that attract participants to adventure activities would open up possibilities for cross selling within the tourism industry. Activities and experiences similar to the expectations of adventure tourists that are present in non adventure tourist packages could be accented in marketing material. For instance, an expectation of an adventure tourist may be to experience a different culture in an authentic setting or to be provided with an opportunity for introspection. These experiences could be promoted in other types of tourism as well.

Possible future research could involve an exploration of the other tourism activities undertaken by adventure tourists to uncover similarities and differences in expectations and motivation.

REFERENCES

- Armstrong, G., Kotler, P., Harker, M. & Brennan, R. 2012. *Marketing an Introduction*. 2nd Edition. England: Pearson.
- Cater, C. (2000). Can I play too? Inclusion and exclusion in adventure tourism. *The North West Geographer*, 3, 49-59.
- Corbin, J. & Strauss, A. (1990). Grounded theory research: procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1):3-21.
- Creswell, J.W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. Thousand Oaks: SAGE.
- De Vos, A.S., Strydom, H., Fouché, C.B., & DELPORT, C.S.L. (2009). *Research at grass roots: For the social sciences and human service professionals*. 3rd ed. Pretoria: Van Schaik Publishers.
- Edgington, C.R., Hudson, S.D. & Lankford, S.V. (2001). *Managing Recreation, Parks, and Leisure Services: An Introduction*. (2nd ed). Champaign, IL: Sagamore. 496.
- Evans, J. 2007. *Your psychology project: The essential guide*. London: SAGE.
- Flucker, M.R. & Turner, L.W. (2000). Needs, motivations, and expectations of a commercial whitewater rafting experience. *Journal of Travel Research*. 38, 380-389.
- Green, B.C. & Chalip, L. (1998). Sports tourism as the celebration of subculture. *Annals of Tourism Research*, 25(2), 275-291.
- Grant, D. (2001). Invited viewpoint – adventure tourism: a journey of the mind. In: Roberts, L. & Hall, D., (2001). *Rural tourism and recreation: Principles and Practice*. CABI Publishing.
- Guo, Z. & Sheffield, J. (2007). A pragmatic and methodological examination of knowledge management research: 2000 to 2004. *Science Direct. Decision Support Systems* 44(2008):673-688.
- Hill, B.J. (1995). A guide to adventure travel. *Parks and Recreation*, September, 56-65.
- Hopkins, D. & Putman, R. (1993) *Personal growth through adventure*. Fulton.

- Kotler, P. & Armstrong, G. (2011). *Principles of Marketing: Global and Southern African Perspectives*. Cape Town: Pearson.
- Leiper, N. (1995). In: Pigram, J. & Jenkin, J.M. (1999). *Outdoor recreation management*: Routledge
- Meisel, C., & Cottrell, S. (2003). Differences in motivation and expectations of divers in the Florida Keys. *Proceedings of the 2003 Northeastern Recreation Research Symposium*, 393-401.
- Middleton, V.T.C., Fyall, A., Morgan, M. With Ranchod, A. (2009). *Marketing in Travel and Tourism*. Fourth edition. Oxford: Butterworth-Heinemann.
- Mills, R.C. & Morrison, A.M. (1992). *The tourism system: An introductory text*, 2nd Edition. London: Prentice Hall.
- Morgan, D. (1998). *Safety and the adventure tourism process: Implications for research and recommendations for the adventure tourism industry*. Department of Management, Monash University, Caulfield East Vic Australia.
- Muller, T.E. & Cleaver, M. (2000). Targeting the CANZUS baby boomer explorer and adventure markets. *Journal of Vacation Marketing*, 6(2), 154-169.
- Priest, S. (2001). *The semantics of adventure programming*. In: Miles, J, & Priest, S. ed. *Adventure Programming*. Venture Publishing.
- Pomfret, G. (2006). Mountaineering adventure tourists: a conceptual framework for research. *Tourism Management*. 27 (2006), 113-123.
- Scott, C. (2001). *Adventure motorcycling handbook: Worldwide motorcycling route and planning guide*. Trailblazer Publications. The Old Manse, Tower Road, Hindhead, Surrey.
- Smith, C. & Jenner, P. (1999). The adventure travel market in Europe. *Travel and Tourism analyst*. 4(43), 43-64.
- Swartbrook, J., Beard, C., Leckie, S. & Pomfret, G. (2003). *Adventure tourism: The new frontier*. Butterworth-Heinemann: Elsevier Science.
- Wasserman, J.A., Clair, J.M. & Wilson, K.L. (2009). Problematics of grounded theory: innovations for developing an increasingly rigorous qualitative method. *Qualitative Research*, 9(3):355- 381.
- Weber, K. (2001). Outdoor adventure tourism: A review of research approaches. *Annals of Tourism Research*, 28 (2), 360-377.

CHALLENGES OF SERVICE DELIVERY IN THREE COMMUNITY SERVICE CENTRES OF SOUTH AFRICAN POLICE SERVICE IN EAST RAND POLICING AREA OF GAUTENG, SOUTH AFRICA

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ABSTRACT

Community Service Centres (CSC) of the South African Police Service (SAPS) usually referred to as charge offices are the only offices which remain open daily, on a 24-hour basis to provide services to the community relating to safety and security. However, little is known from studies on the problems militating against their optimal service delivery to the clients, especially in the present dawn of public clamouring for effective service delivery in South Africa. Against this background this study was motivated to investigate the associated problems that inhibit the optimal service delivery of police officials deployed at CSCs in the East Rand area of Gauteng Province in the course of their duties and services to the communities. Three locations were purposefully selected from the East Rand Policing area, namely Bedfordview, Devon and Katlehong, from where the population of the study was derived. Though this paper relied mainly on the key informant interview source, the study made use of 112 respondents and 9 other interviewees which comprised of members of the Community Policing Forum (CPF) (3) and senior police commissioned officers of the SAPS (6). Survey and Key Informant Interview techniques were utilised as the main sources of data. Among other issues, the study generally revealed that poor road infrastructure, inadequate town planning shortcoming such as irregular numbering of houses, unoccupied houses and assistance to traumatized clients were seen as the major challenges that face these police officials at the CSCs. Remedies and measures to address and substantially deal with the challenges were identified in the study.

INTRODUCTION

The main issue regarding service delivery by the South African Police Service (SAPS) centres on professionalism and the manner in which these services are rendered for smooth running of the criminal justice system in South Africa. Customer care is a key issue for the government as members of the community need professional and efficient service. In their requirement for such services, organisational policies about how things should be done or why they cannot be done do not matter to the members of society (Ford, 1997:10). Service delivery is one of the priorities of the SAPS as outlined in their strategic plan for 2002-2005. All the five financial programmes have service delivery as one of the priorities that need to be looked at and accomplished (South African Police Services, 2002:23). The inclusion of service delivery as a priority shows that members of the SAPS top management view their customers as very important people to do business with and by implication furthering the business model of the SAPS functions and duties.

Police officials at the Customer Service Centres (CSC) of the South African Police Service are not just expected to deliver services, but quality services to the community. Quality services may include, but are not limited to, the following: quick attendance to and the use of good manners when answering a telephone call; quick response to complaints from within the policing precinct; quick attendance to and professionalism displayed when assisting clients who visit the CSC; knowledge of the job; demonstration of creativity when attending to clients; no laziness; and showing respect to clients. This mandate has been re-enforced by recent

guidelines initiated by the current President of South Africa, Mr Jacob Zuma, in which accountability by government officials was made a necessity (Mahlangu, 2009:1). Poor service delivery by various government departments, including the SAPS has caused the state a lot of unquantifiable material loss in many instances. It is difficult to predict what communities' reaction will be as a consequence of persistent poor, inefficient, and ineffective service delivery. As has been observed, they may either protest by means of mass action or resort to acts of vigilantism, especially where there is miscarriage or failure of the criminal justice system and police poor performance. Community reactions are not limited to the latter and there are various ways in which they show their dissatisfaction. In response to poor service delivery by the SAPS and reported delay or miscarriage of justice, some communities resort to unlawful self-organised activities that usually bring about lawlessness and disobedience to the law. This manifest in organisations being formed such as *Masithwalisane* in Mpumalanga Province, *Mapogo* in Limpopo Province, People Against Gangsterism and Drugs (Pagad) in the Western Cape Province and other provinces of South Africa (Sekhonyane and Louw, 2002:1).

The South African Police Service, like any other public organisation, has the main objective of delivering quality services to its customers. Delivery of services to the community members who are the clients of SAPS will not just be an easy and unchallenged task. Observation has provided enough proof that there is still much to be done by the South African Police Service to satisfy their clients from various communities that they serve. This scenario of apparent inability of the SAPS to completely satisfy their customers in terms of the expected service delivery is a national issue, though more pressure tends to mount on the Police service in highly urbanised provinces such as Gauteng, especially in areas with relatively high population density. Against this notion, this study highlights arrays of challenges which hinder the smooth delivery of services, which results to poor service delivery to the public in the East Rand policing area of Gauteng Province. This paper specifically presents findings on the problems associated with service delivery at the CSC and strategies that are already in place and those that can be put in place to resolve the identified problems.

LOCATION OF STUDY AND METHODOLOGY

For the purpose of this study, three locations were purposefully selected from the East Rand Policing area, namely Bedfordview, Devon and Katlehong, from where the population of the study was derived. According to Management Information Centre (MIC) in these stations, these locations have estimated community population of 800 000 (Katlehong), 135 000 (Bedfordview) and 16 103 (Devon). A total stratified sample of 112 respondents was selected for the survey, while 9 other interviewees were purposefully selected for the key informant interview that was conducted in the field, which comprised of three (3) members of the Community Policing Forum (CPF) and six (6) senior police commissioned officers of the SAPS. As data collection instruments, the study utilized a close ended questionnaire and a Key Informant Interview Guide for the survey and oral interviews respectively. The responses were focused on general and specific problems that the police officials encounter in the delivery of their services to the community and what remedies available to deal with the challenges. This discourse relied mainly on interviews conducted among the police officials in the three stations studied.

CHALLENGES FACING POLICE OFFICIALS AT THE COMMUNITY SERVICE CENTRES

Senior police officers from the Detective Service and Visible Policing units were interviewed with the aim of highlighting the challenges that negatively impact on service delivery by the CSCs. Based on the knowledge that police officials will not succeed in their endeavours to fight crime or to deliver excellent services without the involvement of the community, it became important to also elicit the views of senior members of the Community Policing Forum (CPF). Community Policing Forum is the legalised body in terms of section 18 of the South African Police Service Act, 68 of 1995 (Republic of South Africa 1995, Government Gazette) which stipulates that: The Service shall, in order to achieve the objects contemplated in section 215 of the Constitution, liaise with the community through Community Police Forums and Area and Provincial Community Boards, in accordance with sections 19, 20, and 21, with a view to- establishing and maintaining a partnership between the community and the Service; Promoting communication between the Service and the Community.

Generally, CPF members carry the joint mandate of the community and that of the police. They advance whatever points of concern from the community to the police or vice-versa. Through inclusive discussions with the CPF, members will send the message to the broader community via the CPF representatives. The CPF plays a crucial role in policing as a whole, but more specifically in discussion of security problems that face their respective community and vice versa, offering sponsorship to assist with training, assisting with resources and language interpretation when the need arises.

Specific to this discourse, since the locations investigated by the study differed demographically, the challenges may not be exactly the same; however, there are certain organisational problems that are the same for all areas. During the in-depth interviews, data were collected with regard to local challenges and organisational problems were highlighted by the respondents. A few challenges that have the potential to negatively impact on service delivery were revealed, and they are discussed.

Presence of Criminal Enclaves and Colonies (“hideouts”) in the Policing Area

During the interview with a senior member of the CPF in Katlehong, she mentioned that criminal hideouts exist in her locality. According to her, *“we have problems with empty houses which are used by criminals.”* A similar challenge was also echoed by the CPF member of Bedfordview. Of course, criminal hideouts are really community irritants. These hideouts are places such as unoccupied houses which the owners have left or abandoned because of various reasons. In many instances shacks in informal settlements are also used as hideouts. To some extent proper houses and even old, neglected government buildings are used by criminals. People migrate willingly and leave their properties such as houses unattended. Some could have left in the state of emergency, running away from law enforcement agents or when their lives were threatened. For instance, during the xenophobic attacks which troubled South Africa in the past few years especially before 2009, many people, especially foreigners, left their houses or places of shelter. Criminals use these empty houses to evade law enforcement agents, to plan their criminal activities, and to hide stolen items. Victims of rape are sometimes dragged into these places where the perpetrators will take advantage of them.

Cases that have demonstrated the dangers of hideouts are many in South Africa. In December 2010 a police Constable was shot dead while patrolling in Zola, Soweto. Similarly, the Area CPF raised a concern about mushrooming shacks in the Mzimhlophe hostel which is linked to another related incident where two police officials were shot dead while patrolling the Mzimhlophe hostel. The response from one of the officials of the CPF pointed towards the inappropriateness of the shacks as hideouts for criminals. According to the General Secretary of the Meadowlands CPF, *“The hostel harbours criminals. Long ago it was Ok. It’s only now that bad things are starting to happen”* (Mashaba, 2010:7). The demographics and environment of Katlehong are not much different from those of Soweto as there are a lot of hostels and informal settlements in the area. Bedfordview, however, does not have an informal settlement. Most people live in proper houses but observation has shown that people living in proper houses also leave their houses unattended for a long time, causing some unidentified people to seize the opportunity to inhabit them. All sorts of negative, criminal activities as mentioned above take place in the areas under investigation which, on closer scrutiny, are facilitated by empty/abandoned dwellings or premises.

The issue of criminal hideouts is becoming a growing problem that is not an easy battle. This problem grows as townships get more densely populated due to the movement of local unemployed people and foreigners who come here to seek employment. As some of them move from one location to another seeking for employment, their shacks are usually left behind unattended, perhaps in the hope of returning to them in the future. Similarly, observation has shown that as undocumented foreigners get arrested and deported on a daily basis, their places of shelter while in South Africa are often not destroyed. These people live in the hope of coming back after their deportation. The researcher frequented a hostel in one of the areas a lot and he is familiar with hostel life. There is a growing concept that the rooms are “inherited”. For example, a father will hand over his room to the son after retirement or to a family member upon leaving the hostel. A visit to the hostel will reveal that people who come from a certain area or are of a particular clan are usually located in one block. This

situation now allows uncontrolled influx of people into the hostel, out of which some may resort to criminal activities.

Unprofessional and Low Quality of Written Statements by Police Officials at the Charge Offices

Police officials deployed at the CSC are expected to spend most of their time writing statements from various complainants. The poor quality of many statements was raised as one of the challenges facing the CSC of the SAPS. Senior officers from the Detective Services from all the locations raised a concern about the poor quality of the statements when they were asked specifically to comment on the inclusion of elements of crime in the written statements just to test if that has reached a level of excellence, or could even just be rated as good. A Senior Detective police officer from Katlehong for example stated: *“The standard of statement taking is average; we cannot described it as good because we still find crime dockets which were not supposed to be opened due to lack of the criminal elements being identified [in the statements].”* According to Snyman (2002:32) “the requirements of criminal liability include: legality, act, conduct, unlawfulness, and culpability.” These elements must be there before a person can be accused of committing a crime. Besides, these elements must somehow be visible in the statement when a criminal docket is opened. This is very important because the National Prosecuting Authorities of South Africa will check such elements before taking a decision whether a criminal case is feasible or not. Prosecutors will not even put the case docket on the court roll if the statement submitted by the police official does not meet the above requirements for criminal prosecution. In support of this, the Senior Commissioned Detective Officer of Bedfordview stated: *“It is an ideal situation that all statements taken will cover all elements of crime, but it is not always the case. We have young members who lack the knowledge”*. The Detective Senior Officer of Devon on the other hand maintained that most of the statements that he receives from the CSC do contain all the necessary elements of crime. In cases where dockets are received but the elements of crime are not clearly visible, a re-take of the statements may be required. This adversely affects the time spent by the complainant to make a statement and has economic consequences in instances where the complainant might have been coming from another area or province. The re-take of a statement becomes crucial if the matter is before the court, and the original statement contains omissions and vital elements of the case disregarded. However, it is also a very costly exercise where tracing witnesses or making calls to the complainants usually cost lots of money and time.

Another important issue which the officers from the Detective Service unit were required to comment on was the issue of linking suspects to a committed crime. Without comparing the different stations in terms of performance, all officers mentioned that this point was not always covered in the crime dockets they received on a daily basis. When they were asked to roughly quantify the success level out of one hundred percent, Commanders gave figures which ranged from 60% to 80% for correct statements. In criminal cases, when suspects are not linked to a crime, there is no justification for the arrest. In practical terms, some criminals will not face charges for crimes which they actually committed and in certain instances they will not be found guilty in court, or the cases will be discharged or withdrawn, due to the poor quality of the statements taken at the CSC. This results in ordinary members of the community pointing fingers at the judicial system, believing that it has failed them as law abiding citizens. Accurate descriptions of suspects and records of witnesses were the other points which were highlighted as not usually done properly during the opening of case dockets.

Inaccessibility of Areas and Inability to Locate House Addresses during Patrols

This issue was raised as a two-fold challenge, namely the shortage of resources like vehicles and police officials, and poor road infrastructure. Compared to Katlehong and Devon, Bedfordview policing area has a better infrastructure. In this regard the Senior Visible Policing police officer of Bedfordview who was interviewed stated the following: *“The policing precinct is very big and colossal. Vehicle allocation is not enough and these vehicles are not reliable”*. A similar problem with the size of the area was a point of concern for the Senior Visible Policing police officer at Devon, *“We have big farms which are far apart. We lack manpower. We cannot attend to all complaints within the shortest reasonable time”*. In Katlehong, it appeared from the interviews that in addition to problems of shortage of vehicles, some areas are not easily accessible because of

poor road infrastructure. In some areas, there are no street lights and no house numbers displayed which, according to the Senior Visible Policing police officer, are big challenges especially during the night. A senior member of the CPF in Katlehong stated: *“The Patrollers do appear as rescue to police in areas where it is not easy to locate an address. In some instances, the complainants will be asked to wait for the police next to a prominent structure like a tuck shop or something”*. Patrollers refer to the members of the community, not employed but assist the police by patrolling the streets on voluntary basis. By all indications, this practice is dangerous, especially when the complainant has to wait for the police in a lonely spot. Besides, the present problem makes on spot arrests and rescues somewhat difficult to accomplish.

Dealing with Psychologically Traumatized Clients in the Station

Crimes like rape and other violent crimes such as armed robbery, assaults with intent to inflict serious bodily harm, and vehicle accidents especially where loss of life has occurred may negatively affect sensitive people. Some victims and potential sources will be so traumatized that it will not be easy for the police to obtain their statements. It was learnt during fieldwork that stations like Katlehong and Bedfordview have put measures in place to effectively deal with traumatized clients. Victims of traumatic crime incidents get de-briefed by volunteers who are professional social workers. It must be added that trauma crime scenes do not only affect the victims or witnesses, but that members of the SAPS also become traumatized by such incidents.

REMEDIES FOR THE CHALLENGES OF POOR SERVICE DELIVERY IN THE POLICING AREA

As the problems were raised by the respondents, it was also interesting to note that in certain instances they had already put measures in place to address the identified problems. It must be remembered that some of the problems need a long term solution, while some will not completely disappear even after the implementation of corrective measures. Such latter challenges should be gradually dealt with as time progresses. For example, there will always be depressed and traumatized clients in the community out there as long as there are still criminals in the neighbourhood, and police officials will still face gruesome crime scenes. Meanwhile, other challenges like road infrastructure, street lights, and displaying street names and house numbers can be collectively rectified by the relevant authorities in consultation with the community.

Regularity of Police Patrol and Raids around the Enclaves

The presence of criminal hideouts is usually a major problem for community members and the South African Police Service alike. A short term solution for the police is usually to raid such premises often to disrupt criminal activities. In this regard, a senior member of the CPF in Bedfordview indicated: *“The Community Police Forum takes the issue of empty houses as their own responsibility. We make sure that we involve the relevant people, but only in those incidents which are reported to us.”* There seemed to be no remedy from Katlehong for this problem during the time of this study. The CPF representative mentioned that Katlehong is so big, that some places are known to the CPF while others only come to light when problems occur there.

Involvement of Council level Political Structure

This situation needs the involvement of the councillors in whose jurisdiction some hostels fall. Since some hostels are owned by municipalities, they should document all persons who are renting the rooms and make sure that there are bylaws which must be enforced. In 1990 system was working well when Municipality Police patrolled these premises. The Municipality Police were responsible for enforcing the Municipality Bylaws. This sentiment was echoed by the CPF Secretary General of Meadowlands who correctly stated that councillors have to go to the hostel and ask for permits from the residents (Mashala, 2010:7); in so doing, they will be exercising some control measures. This sentiment was expressed particularly after the killing of police officials who were on patrol around *Mzimhlophe* hostel in Soweto. Councillors on the other hand have to do something to solve the problem related to empty shacks as they are built on municipality grounds; in this regard, some municipality laws or bylaws must be enforced. There must be community leaders in each block around the informal

settlements whose job will be to liaise with community members and the police. This challenge has to be addressed jointly by the CPF and the police.

Regular and Appropriate Focused Police Training

Similarly, the solution to the problem of quality statements can only be addressed by means of vigorous training of police officials. The South African Police Service as the employer should lay a foundation which will allow police officials to engage themselves in further training at tertiary institutions of their choice. Senior police officers interviewed made mention during fieldwork of the in-service training given to young, inexperienced members which is used to uplift the standard of police officials while waiting for the formal courses. The police engage qualified trainers to impart knowledge to trainees in these SAPS training centres. However, one of the senior police officers from the Visible Police unit stated during the interview that the training process sometimes faced the challenge of unqualified trainers. This respondent stated: *“Training is not outstanding because some people providing this training are not educated enough and some do not have the necessary skills.”* It is also true that it depends on the individual to improve him or herself. Police management should come up with incentives that will encourage employees to further their studies. Training employees is an investment on its own, but government should also develop good career paths to prevent losing trained employees to private companies that offer better remuneration packages.

Procurement of Adequate Facilities and Equipment

Problems with regard to accessibility to certain areas during patrols were two-fold; shortage of vehicles and poor road infrastructure. On the issue of the vehicles, the SAPS as the employer recently distributed vehicles to be used by the police. To be exact, the SAPS in Gauteng received 313 new vehicles in January 2010, some of which were earmarked for use by CSC police officials. During the handing over of those cars, the National Police Commissioner at the time, General Cele, said officers receiving the vehicles should not abuse them, but should treat them like their children (Manzi, 2011:5). It must be mentioned that police stations in the East Rand, including those which formed part of the study, were also recipients of the new fleet.

It was revealed during study that complainants would be asked to wait for the police next to prominent structures like tuck shops, telephone containers or schools when their place of residence was not easily accessible by a vehicle. Proper road infrastructure is the responsibility of the government, and attempts to deal with this problem are noticed on a daily basis where construction sites are visible; however, it seems to occur at a very low pace.

Police stations also make use of community patrollers to access areas that are not easily accessible by vehicles, especially in Katlehong. Community patrollers help to locate complainants' addresses where no proper street numbering exists. In these cases local authorities should intervene as well, because the interim process is time consuming. Perhaps there should be some Municipality bye-laws to be enacted which will require house owners to visibly display house numbers. In reality, local authorities in Katlehong and Devon should start by naming and displaying street names because there are a lot of streets without signage. This practice will make the job of the police easier will find addresses more quickly when there is a complaint. Proper numbering and naming of the streets will prevent situations where the police arrive after many hours have lapsed, or not at all, after calls were made.

Victim and Trauma Support Programme

A distinction must be made between victims and witnesses who are traumatised because of exposure to serious criminal scenes. Victims of crime will be those whom the suspects confronted face to face, for instance a rape victim, while witnesses will be those who happened to see the incident in progress or after it has happened, for example people who come back home and find members of the family slain. Some of the victims will not find it easy to give statements to the police without having obtained professional help. Information gathered during the in-depth interviews revealed that traumatised complainants in Katlehong and Bedfordview have access to social workers who provide voluntary services to assist victims with counselling after exposure to traumatic incidents.

Counselling takes place at the police stations even after normal working hours. People who help with victim counselling are members of the CPF. Devon did not have a similar intervention programme at the time of this study. However, a senior member of the CPF mentioned that they started to put everything in place for such a programme. It is a fact that police officials who attend serious crime scenes are at times also deeply traumatised by the incidents they encounter. A clear example is a fatal car accident. Each police station has initial de-briefers who engage with such traumatised members before referral to the organisation Help Professionals. South African Police Service employs professional social workers and all employees of the SAPS have free access to them if there is a need. These social workers are stationed at respective Police Stations and at Provincial level. In addition to the latter initiative, the SAPS have trained members at each police station and at specialised units who can conduct initial de-briefings with traumatised members and they will in turn refer some of the police victims to professional social workers if there is a need, or on request of the members.

CONCLUSION

The study further reveals that although a number of inhibiting factors were identified, there are remedies already put in place to address such challenges. It is understood that not all the problems raised may be dealt with permanently, for example the problem of getting statements from traumatised clients. Some of the challenges require that the SAPS deal with them alone, whereas others need an integrated approach where the involvement of external role-players in the community and political structures, such as community leaders, local government councillors and social workers, may be of assistance.

Addressing the factors that inhibit optimal provision of quality services as raised by both the police officials and members of the CPF needs a concerted effort from both the SAPS and the concerned local political authorities. The initiatives already put in place to deal with the identified challenges by the role-players include in-service and formal training in statement writing, use of Community Patrollers, assistance given to traumatised complainants, and road construction in formally disadvantaged areas. They involved: the SAPS, the CPF and local Councillors. Quite spectacularly, while the other two locations are beginning to gain ground with regard to identifying respective criminal enclaves in their areas, Bedfordview CPF has already succeeded in taking ownership of identified criminal hideouts or unoccupied premises.

REFERENCES

- Ford, L. (1997). *Customer Service Excellence: It's in the Details*. West Des Moines: American Media Publishing.
- Mahlangu, M. (2009). Zuma's Visit Surprises Congregation. *The Times*. 25 May: 1.
- Manzi, M. (2011). Gauteng Police Gets More Siren Power. *The Star*, 13 January: 5.
- Mashaba, S. (2010). Cops Declare War on Police Killers. *Sowetan*, 23 December: 4.
- Republic of South Africa. (1995). South African Police Service Act, 1995: Act no 65, 1995. *Government Gazette*, 364 (16731), 4 October.
- Sekhonyane, M. & Louw, A. (2002). *Violent Justice: Vigilantism and the State's Response*. Pretoria: Blueberry Projects cc.
- Snyman, C.R. (2002). *Criminal Law 4th Ed*. Durban: Butterworths.
- South African Police Service (2002). *Strategic Plan for South African Police Service*. Pretoria: Unpublished Working Document.

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